	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING									AMENI	FC DED REPOR	RM 3	
APPLICATION FOR PERMIT TO DRILL								1. WELL NAME and N		921-36G4	BS		
2. TYPE O	F WORK	DRILL NEW WELL	REENTER	P&A WELL	. DEEPEN	WELL ()		3. FIELD OR WILDCA	T NATURAL	.BUTTES		
4. TYPE O	F WELL				hane Well: NO				5. UNIT or COMMUNI	TIZATION	AGREEM	ENT NAM	1E
6. NAME (OF OPERATOR								7. OPERATOR PHONE		0.0545		
8. ADDRE	SS OF OPERAT		KERR-MCGEE OIL		<u> </u>				9. OPERATOR E-MAI	720 92 L	9-6515		
10. MINER	AL LEASE NUM	IBER	P.O. Box 173779		CO, 80217 NERAL OWNERS	SHIP			julie.j		anadarko	.com	
	., INDIAN, OR S				CTC.	DIAN 🔵	STATE 📵) FEE		DIAN 🔵	STATE	F	EE 🔵
13. NAME	OF SURFACE	OWNER (if box 12	= 'fee')						14. SURFACE OWNE	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')						16. SURFACE OWNE	R E-MAIL	(if box 12	! = 'fee')	
		R TRIBE NAME			TEND TO COMM		RODUCTION	FROM	19. SLANT				
(If box 12	= 'INDIAN')			1 '	CON.		ing Applicatio	n) NO	VERTICAL DI	RECTION	AL 📵 H	HORIZON	TAL 🔵
20. LOC/	TION OF WELL	-		FOOTAGE	ES	QTR	R-QTR	SECTION	TOWNSHIP	R/	ANGE	МЕ	ERIDIAN
LOCATIO	N AT SURFACI		210	4 FSL 177	70 FEL	NV	WSE	36	9.0 S	2	1.0 E		S
Top of U	ppermost Prod	lucing Zone	225	FNL 180	3 FEL	SV	WNE	36	9.0 S	2	1.0 E		S
At Total	Depth		225	FNL 180	3 FEL	SV	WNE	36	9.0 S	2	1.0 E		S
21. COUN	TY	UINTAH		22. DIS	STANCE TO NEA	REST LEA 180		et)	23. NUMBER OF ACR	ES IN DRI 63		IT	
					STANCE TO NEA ied For Drilling		leted)	POOL	26. PROPOSED DEPT		TVD: 105	75	
27. ELEV	ATION - GROUN			28. BC	OND NUMBER				29. SOURCE OF DRIL WATER RIGHTS APPR		MBER IF A	PPLICAB	LE
		5054			Hole, Casing	22013		mation		43-0	90		
String	Hole Size	Casing Size	Length	Weight			Max Mu		Cement		Sacks	Yield	Weight
Surf	12.25	8.625	0 - 2630	28.0	J-55 LT	T&C	0.2	2	Type V		180	1.15	15.8
Prod	7.875	4.5	0 - 10708	11.6	HCP-110	I T&C	13.0	n	Class G Premium Lite High Strength		270 320	3.38	15.8
1100	7.070	4.0	0 10700	11.0	1101 110	LIGO	10.		50/50 Poz			1.31	14.3
					A	TTACHN	MENTS	<u> </u>			I		
	VEF	RIFY THE FOLLO	WING ARE AT	ACHED I	IN ACCORDAN	ICE WITH	H THE UTA	H OIL AND G	AS CONSERVATION O	SENERA	L RULES		
w w	ELL PLAT OR M	AP PREPARED BY	LICENSED SURVE	YOR OR E	NGINEER		✓ COMP	LETE DRILLING	PLAN				
AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE)					FORM	5. IF OPERATO	R IS OTHER THAN THE L	EASE OW	NER				
✓ DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED)					торос	GRAPHICAL MA	P						
NAME Danielle Piernot TITLE Regulatory Analyst					PHONE 7	20 929-6156							
SIGNATU	RE			DATE 1	2/20/2011			EMAIL da	nielle.piernot@anadarko.	com			
	BER ASSIGNED 04752246			APPROV	/AL			E	will				
Permit Manager													

Morgan State 921-36J Pad Drilling Program
1 of 9

Kerr-McGee Oil & Gas Onshore. L.P.

MORGAN STATE 921-36G4BS

Surface: 2104 FSL / 1770 FEL NWSE BHL: 2254 FNL / 1803 FEL SWNE

Section 36 T9S R21E

Unitah County, Utah Mineral Lease: ML-22265

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2.a <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,381'	
Birds Nest	1,695'	Water
Mahogany	2,183'	Water
Wasatch	4,637'	Gas
Mesaverde	7,316'	Gas
Sego	9,478'	Gas
Castlegate	9,543'	Gas
MN5	9,975'	Gas
TVD =	10,575'	
TD =	10,708'	

2.c Kerr McGee Oil & Gas Onshore LP (Kerr McGee) will either drill to the the Blackhawk formation, which is part of the Mesaverde formation, or the Wasatch/Mesaverde formation. If Kerr McGee drills to the Blackhawk formation (part of the Mesaverde formation), please refer to MN5 as the bottom formation. The attached Blackhawk Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the deeper formation.

If Kerr McGee drills to the Wasatch/Mesaverde formation please refer to Sego as the bottom formation. The attached Wasatch/Mesaverde Drilling Program includes Total Vertical Depth, Total Depth, and appropriate casing and cement programs for the depths the Wasatch/Mesaverde formations are found.

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

API Well Number: 43047522460000

Morgan State 921-36J Pad

Drilling Program
2 of 9

4. Proposed Casing & Cementing Program:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

5. <u>Drilling Fluids Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

6. <u>Evaluation Program</u>:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program

7. <u>Abnormal Conditions</u>:

7.a Blackhawk (Part of Mesaverde Formation) Target Formation

Maximum anticipated bottom hole pressure calculated at 10575' TVD, approximately equals 6,980 psi (0.66 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 4,701 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

7.b Wasach/Mesaverde Target Formation

Maximum anticipated bottom hole pressure calculated at 9478' TVD, approximately equals 6,066 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,967 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

Morgan State 921-36J Pad Drilling Program

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Morgan State 921-36J Pad Drilling Program
4 of 9

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

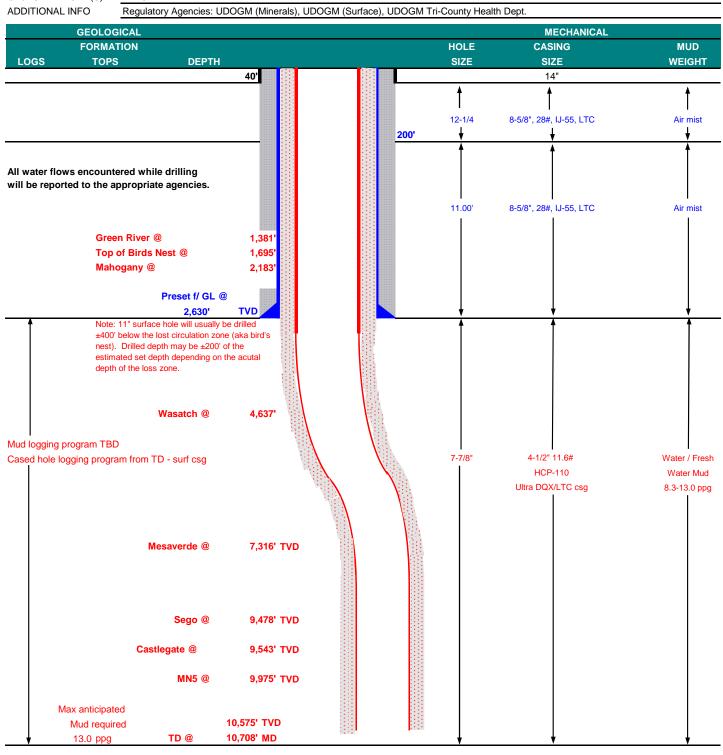
10. Other Information:

Please refer to the attached Blackhawk Drilling Program and the Wasatch/Mesaverde Drilling Program



KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP December 19, 2011 **MORGAN STATE 921-36G4BS** TD 10,575' 10,708' MD WELL NAME TVD STATE Utah **FIELD** Natural Buttes FINISHED ELEVATION 5,053' **COUNTY** Uintah SURFACE LOCATION NWSE 1770 FEL T 9S 2104 FSL Sec 36 R 21E Latitude: 39.991195 Longitude: -109.496289 NAD 27 BTM HOLE LOCATION SWNE 2254 FNL 1803 FEL Sec 36 R 21E Latitude: 39.993586 Longitude: -109.496405 NAD 27 BLACKHAWK **OBJECTIVE ZONE(S)**





KERR-McGEE OIL & GAS ONSHORE LP BLACKHAWK DRILLING PROGRAM

CASING PROGRAM DESIGN FACTORS LTC DQX INTERVAL CPLG. **BURST COLLAPSE TENSION** SIZE GR. WT. CONDUCTOR 14" 0-40' 3,390 1,880 348,000 N/A 8-5/8" 2,630 28.00 IJ-55 SURFACE 0 LTC 1.53 5.40 to 2.05 N/A 8,650 10,690 279,000 367,174 HCP-110 **PRODUCTION** 0 5.000 11.60 4-1/2" DQX 1.19 1.21 3.69 4-1/2" 5,000 to 10,708 11.60 HCP-110 LTC 1.19 1.21 5.26

Surface Casing:

(Burst Assumptions: TD = 13.0 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 9000 psi) 0.66 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15
Option 1		+ 0.25 pps flocele				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15
		+ 2% CaCl + 0.25 pps flocele				
SURFACE		NOTE: If well will circulate water to	o surface, opt	ion 2 will be	utilized	
Option 2 LEAD	2,130'	65/35 Poz + 6% Gel + 10 pps gilsonite	200	35%	11.00	3.82
		+ 0.25 pps Flocele + 3% salt BWOW				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15
		+ 0.25 pps flocele				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15
PRODUCTION LEAD	4,128'	Premium Lite II +0.25 pps	320	35%	12.00	3.38
		celloflake + 5 pps gilsonite + 10% gel				
		+ 0.5% extender				
TAIL	6,580'	50/50 Poz/G + 10% salt + 2% gel	1,550	35%	14.30	1.31
		+ 0.1% R-3				

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
PRODUCTION	Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys wil	ll be taken	at 1,000'	minimum	intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

	wost figs have PVT System for muc	i monitoring. If no PVT is available, visual monitoring will be utiliz	2 u	
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel		
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained



KERR-McGEE OIL & GAS ONSHORE LP WASATCH/MESAVERDE DRILLING PROGRAM

Kerrived	see	<u>WAS</u>	ATCH/M	ESA\	<u>/ERI</u>	DE DRI	<u>LLING PR</u>	<u>OGRAM</u>	
COMPANY NAME KE	RR-McGEE OIL	& GAS ONSHOR	E LP		DATE	Decembe	r 19, 2011		
WELL NAME M	ORGAN STA	TE 921-36G4	BS		TD	9,478'	TVD	9,611' MD	
FIELD Natural But	tes	COUNTY	Uintah S	TATE Uta	h	FINI	SHED ELEVATION_	5,053'	
SURFACE LOCATION	NWSE	2104 FSL	1770 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.991195	Longitude:	-109.49	6289		NAD 27		
BTM HOLE LOCATION	SWNE	2254 FNL	1803 FEL	Sec 36	T 9S	R 21E			
	Latitude:	39.993586	Longitude:	-109.49	6405		NAD 27		
OBJECTIVE ZONE(S)	Wasatch/Mes	saverde					_		
ADDITIONAL INFO	Regulatory A	gencies: UDOGM	(Minerals), UDO	GM (Surfa	ce), UDC	GM Tri-Count	y Health Dept.		
GEOLO	OGICAL						MECH	HANICAL	
FORM	ATION					HOLE	CASIN	G	MUD
LOGS TO	PS	DEPTH				SIZE	SIZE		WEIGHT
		40'				•	14"		
						†	1		<u> </u>



KERR-McGEE OIL & GAS ONSHORE LP

WASATCH/MESAVERDE DRILLING PROGRAM

CASING PROGRAM								DESIGN FACTORS			
										LTC	DQX
	SIZE	INT	ERVAI	L	WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"	C)-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,630	28.00	IJ-55	LTC	2.05	1.53	5.40	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.03		2.96
								7,780	6,350	223,000	
	4-1/2"	5,000	to	9,611'	11.60	I-80	LTC	1.11	1.03	5.15	

Surface Casing:

(Burst Assumptions: TD = 12.5 0.73 psi/ft = frac gradient @ surface shoe ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 0.64 psi/ft = bottomhole gradient psi)

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	łT	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface, opt	ion 2 will be	utilized		
Option 2 LEAD	2,130'	65/35 Poz + 6% Gel + 10 pps gilsonite	200	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	4,131'	Premium Lite II +0.25 pps	320	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	5,480'	50/50 Poz/G + 10% salt + 2% gel	1,300	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe
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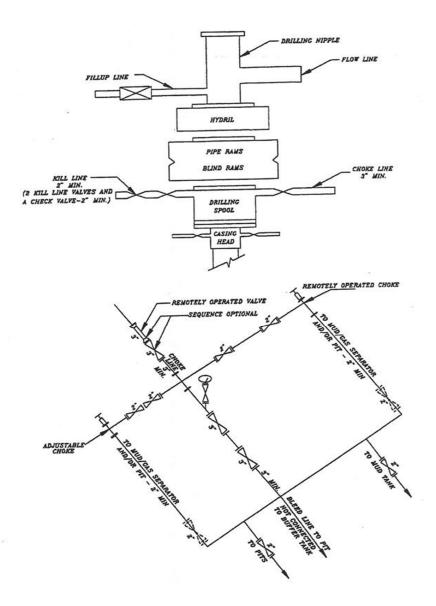
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Surveys will be taken at 1,000' minimum intervals	s.
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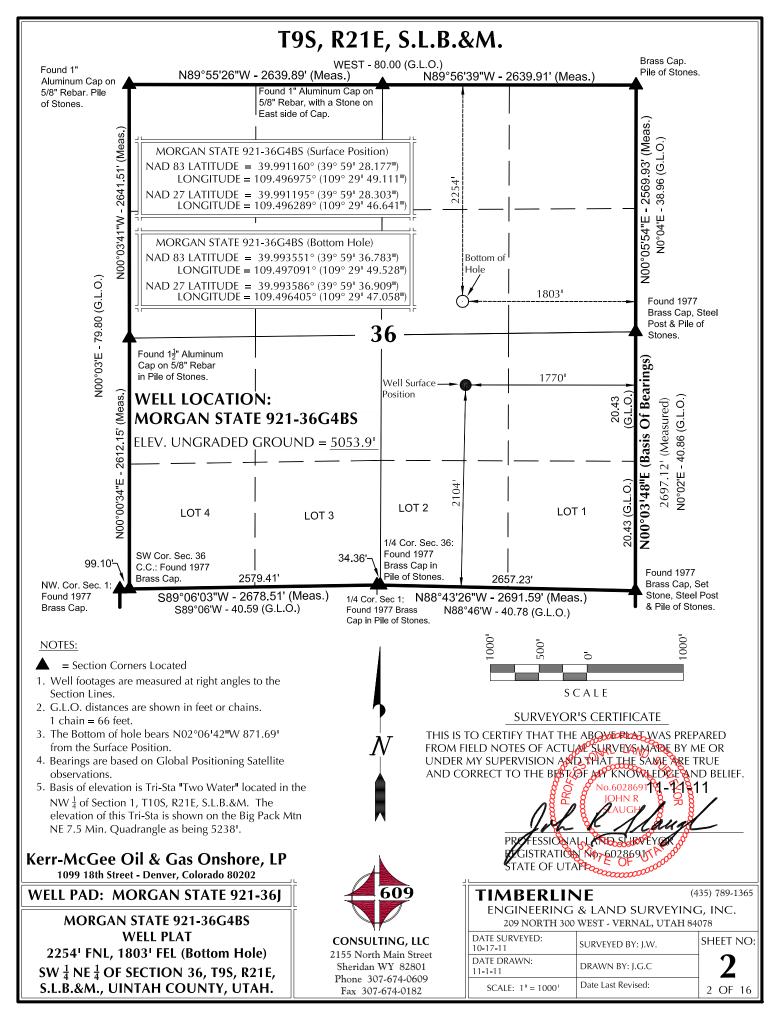
	Most rigs have PVT System for muc	I monitoring. If no PVT is available, visual monitoring will be utilized.		
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers / Chad Loesel	-	
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young	_	

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A
MORGAN STATE 921-36G4BS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



		SUI	RFACE POSITIO	N			R	OTTOM HOLE		
WELL NAME	NAD	083	NAE	27		NAI	D83	NAD		
MORGAN STATE	LATITUDE 39°59'28.106"	LONGITUDE	LATITUDE 39°59'28.232"	LONGITUDE	FOOTAGES	LATITUDE 39°59'23.337"	LONGITUDE	LATITUDE 39°59'23.463"		FOOTAGES
921-36J4BS	39.991141°	109°29'49.022" 109.496951°	39.59.28.232 39.991175°	109°29'46.552" 109.496264°	2097' FSL 1763' FEL	39°59°23.337° 39.989816°	109°29'49.723" 109.497145°	39°59°23.463° 39.989851°	109°29'47.253" 109.496459°	1613' FSL 1817' FEL
MORGAN STATE 921-36G4BS		109°29'49.111"		109°29'46.641"	2104' FSL	39°59'36.783"	109°29'49.528"		109°29'47.058"	2254' FNL
MORGAN STATE	39.991160° 39°59'28.247"	109.496975° 109°29'49.201"	39.991195° 39°59'28.373"	109.496289° 109°29'46.731"	1770' FEL 2111' FSL	39.993551° 39°59'33.345"	109.497091° 109°29'49.508"	39.993586° 39°59'33.471"	109.496405° 109°29'47.038"	1803' FEL 2626' FSL
921-36G4CS	39.991180°	109.497000°	39.991215°	109.496314°	1777' FEL	39.992596°	109.497086°	39.992631°	109.496399°	1801' FEL
MORGAN STATE 921-36J1CS	39°59'28.319" 39.991200°	109°29'49.290" 109.497025°	39°59'28.445" 39.991235°	109°29'46.820" 109.496339°	2118' FSL 1784' FEL	39°59'30.152" 39.991709°	109°29'49.498" 109.497083°	39°59'30.278" 39.991744°	109°29'47.028" 109.496397°	2303' FSL 1800' FEL
MORGAN STATE	39°59'28.147"	109°29'49.521"	39°59'28.273"	109°29'47.050"	2100' FSL		1.00.107.000	,		1000 ILL
5-36	39.991152°	109.497089°	39.991187°	109.496403°	1802' FEL	D==141 1 - D 1				
WELL NAME	NORTH	EAST WE	1	COORDINATES ORTH EAS		NAME NOR		WELL NAM	IE NORTH	EAST
MORGAN STATE		E4 OL MOR	RGAN STATE o	71.1' -32.	MORGA	AN STATE ELE		MORGAN STA		-16.2
921-36J4BS		921-	36G4BS O		921-360	J4C5		921-36J1CS		
<		1	13.00 30 W 00.	AZ=355.02306° N04°58'37"W -186.19'	N02°3 69:	Z=357.3666 38'02"W - 5 6688 888 7688 7688 7688 7688 7688	BASIS OF THE SE $\frac{1}{4}$ S.L.B.&M GLOBAL	OF SECTION : I. WHICH IS TA POSITIONING		
		VELL: MOR	GAN STATE	€ 5-36 © ′0	 MORGA	GAN STATE 9 RGAN STATI ORGAN STA	921-36G4CS E 921-36G4B	Az. to Exist. W S Az. to Exist. BS Az. to Exist	=225.84306° 2 /.H.=247.75472 W.H.=264.560 . W.H.=276.10	2° 26.9' \\ 22° 26.9' \\ 228° 32.0' \\ 4444° 39.0'
Kerr-Mc0	Gee Oil &	VELL: MORO	GAN STATE	€ 5-36 © ′0	Hole) WORGA WORGA WORGA WORGA WORGA WORGA WORGA	GAN STATE 9 RGAN STATI ORGAN STA	921-36G4CS E 921-36G4B ATE 921-36J4	Az. to Exist. W S Az. to Exist. BS Az. to Exist.	/.H.=247.75472 W.H.=264.560 . W.H.=276.10	2° 26.9' \\ 22° 26.9' \\ 228° 32.0' \\ 4444° 39.0'
Kerr-Mc (Gee Oil & 8th Street - Der	Gas Ons	hore, LP	€ 5-36 © ′0	S06°28'23"W - 485.79" AZ=186.47306	GAN STATE 9 RGAN STATE ORGAN STA	921-36G4CS E 921-36G4B ATE 921-36J4	Az. to Exist. W S Az. to Exist. BS Az. to Exist. N S C A L E	V.H.=247.75472 W.H.=264.560 V.H.=276.10	2° 26.9' \\ 22° 26.9' \\ 228° 32.0' \\ 4444° 39.0'
Kerr-McC 1099 18 WELL PA	Gee Oil & 8th Street - Del	Gas Ons	hore, LP 80202 921-36J	€ 5-36 © ′0	Hole) WORGA WORGA WORGA WORGA WORGA WORGA WORGA	GAN STATE 9 RGAN STATE ORGAN STA	70 - 50 - 50 - 50 - 50 - 50 - 50 - 50 -	Az. to Exist. W S Az. to Exist. BS Az. to Exist. N S C A L E	V.H.=247.75472 W.H.=264.560 V.H.=276.10	2° 26.9' 28° 32.0' 4444° 39.0'
Kerr-McC 1099 18 WELL PA	Gee Oil & 8th Street - Del	Gas Ons AN STATE S	hore, LP 80202 921-36J	€ 5-36 © ′0	S06°28'23"W - 485.79" AZ=186.47306	GAN STATE 9 RGAN STATE ORGAN STA	221-36G4CS E 921-36G4B ATE 921-36J4	Az. to Exist. W S Az. to Exist. BS Az. to Exist. N S C A L E INE IG & LAND	(.H.=247.75472 W.H.=264.560 . W.H.=276.10	2° 26.9' 28° 32.0' 4444° 39.0' 35) 789-1365
Kerr-Mc(1099 13 WELL PA WEL WEL	Gee Oil & 8th Street - Der ID - MORG	Gas Ons	hore, LP 80202 921-36J	E 5-36	(To Bottom Hole) S06°28'23"W - 485.79" AZ=186.47306	GAN STATE 9 RGAN STATE ORGAN S	D21-36G4CS E 921-36G4B ATE 921-36J4 ENGINEERIN 209 NORTH: E SURVEYED:	Az. to Exist. W S Az. to Exist. BS Az. to Exist. N S C A L E INE IG & LAND	(.H.=247.75472 W.H.=264.560 . W.H.=276.10	2° 26.9' 28° 32.0' 4444° 39.0' 35) 789-1365
Kerr-McC 1099 18 WELL PA WEL WEL	Gee Oil & 8th Street - Der 1D - MORG LL PAD INTE LS - MORGAN MORGAN STATI	Gas Ons AN STATE 9 RFERENCE PI STATE 921-36G4BS, E 921-36G4CS 8	hore, LP 80202 921-36J	CONS 2155 No.	MORGA MORO MORGA MORO	C DAT 10-1 DAT 10-1 DAT	D21-36G4CS E 921-36G4B ATE 921-36J4 ENGINEERIN 209 NORTH: E SURVEYED:	AZ. to Exist. W S AZ. to Exist. BS AZ. to Exist. N S C A L E S C A L E SURVEYED B	(4: W.H.=247.75472 W.H.=264.560 W.H.=276.10 SURVEYINC RNAL, UTAH 840 SY: J.W.	2° 26.9' 128° 32.0' 1444° 39.0' 1444° 39.0' 156.5, INC.
Kerr-McC 1099 13 WELL PA WEL WEL M	Gee Oil & 8th Street - Der ID - MORG LL PAD INTE LS - MORGAN MORGAN STATI MORGAN STATI MORGAN STATI	Gas Ons AN STATE 9 RFERENCE PI STATE 921-36G4BS, E 921-36G4CS 8	hore, LP 80202 921-36J LAT 1885,	CONS 2155 No Sherid	(To Bottom Hole) S06°28'23"W - 485.79" AZ=186.47306	C DAT 10-1 10-1 10-1 11-1	D21-36G4CS E 921-36G4B ATE 921-36J4 TE 921-36J4 ENGINEERIN 209 NORTH: E SURVEYED: 7-11 E DRAWN:	Az. to Exist. W S Az. to Exist. BS Az. to Exist. N S C A L E S C A L E IG & LAND 300 WEST - VER	(4: SURVEYINC RNAL, UTAH 840 SY: J.W.	2° 26.9' 1028° 32.0' 1444° 39.0' 1444° 39.0' 156.0' 167.8

S.L.B.&M., UINTAH COUNTY, UTAH

209 NORTH 300 WEST - VERNAL, UTAH 84078

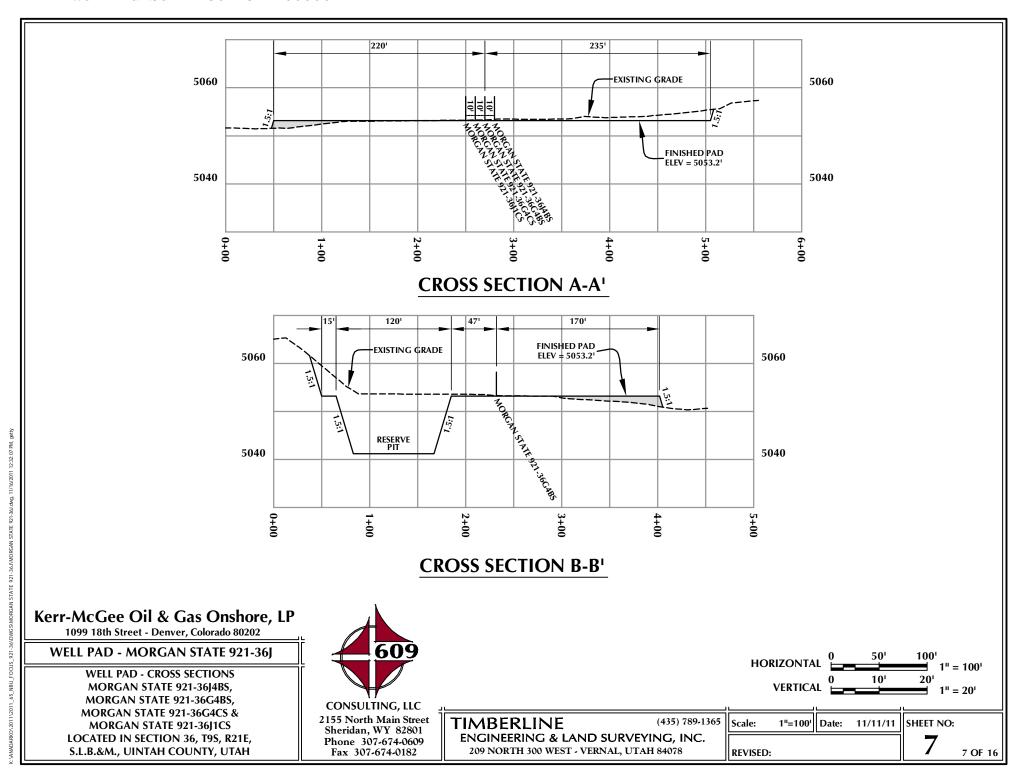
6 OF 16

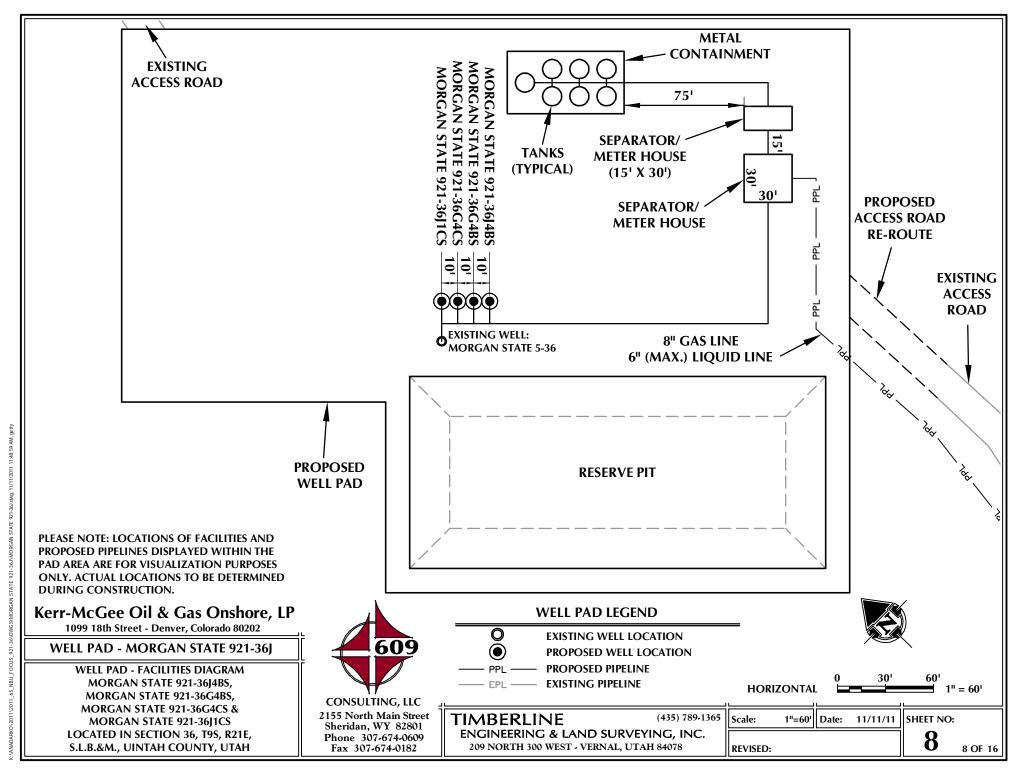
REVISED:

S.L.B.&M., UINTAH COUNTY, UTAH

209 NORTH 300 WEST - VERNAL, UTAH 84078

REVISED:





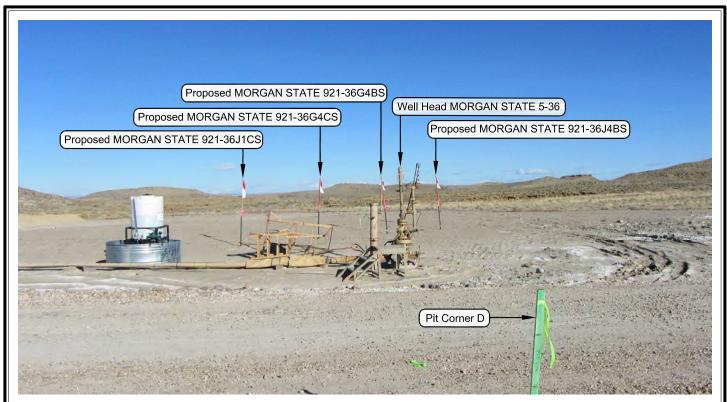


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE





PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: SOUTHERLY

Kerr-McGee Oil & Gas Onshore, LP

1099 18th Street - Denver, Colorado 80202

WELL PAD - MORGAN STATE 921-36J

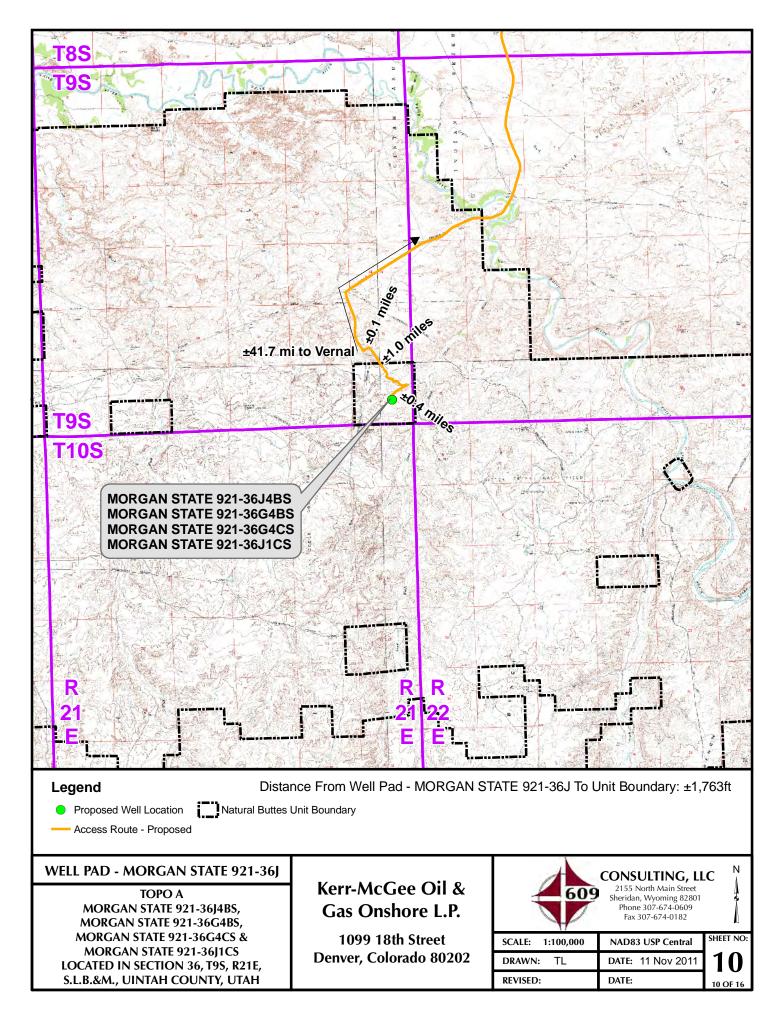
LOCATION PHOTOS MORGAN STATE 921-36J4BS, MORGAN STATE 921-36G4BS, MORGAN STATE 921-36G4CS & **MORGAN STATE 921-36J1CS** LOCATED IN SECTION 36, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.

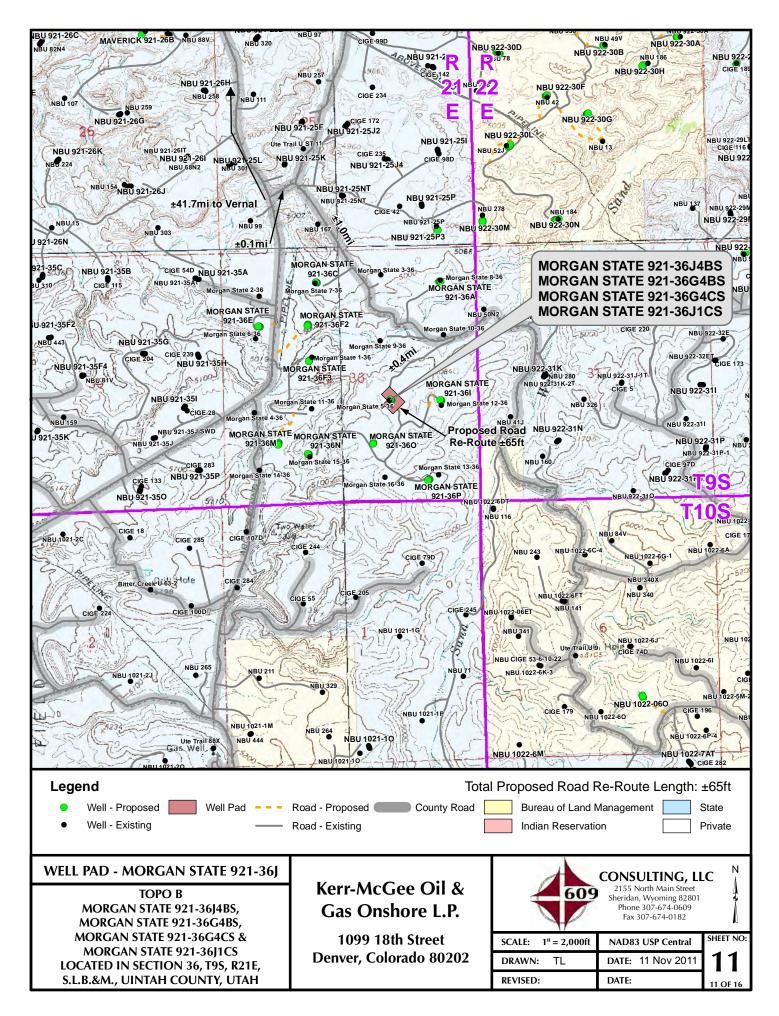


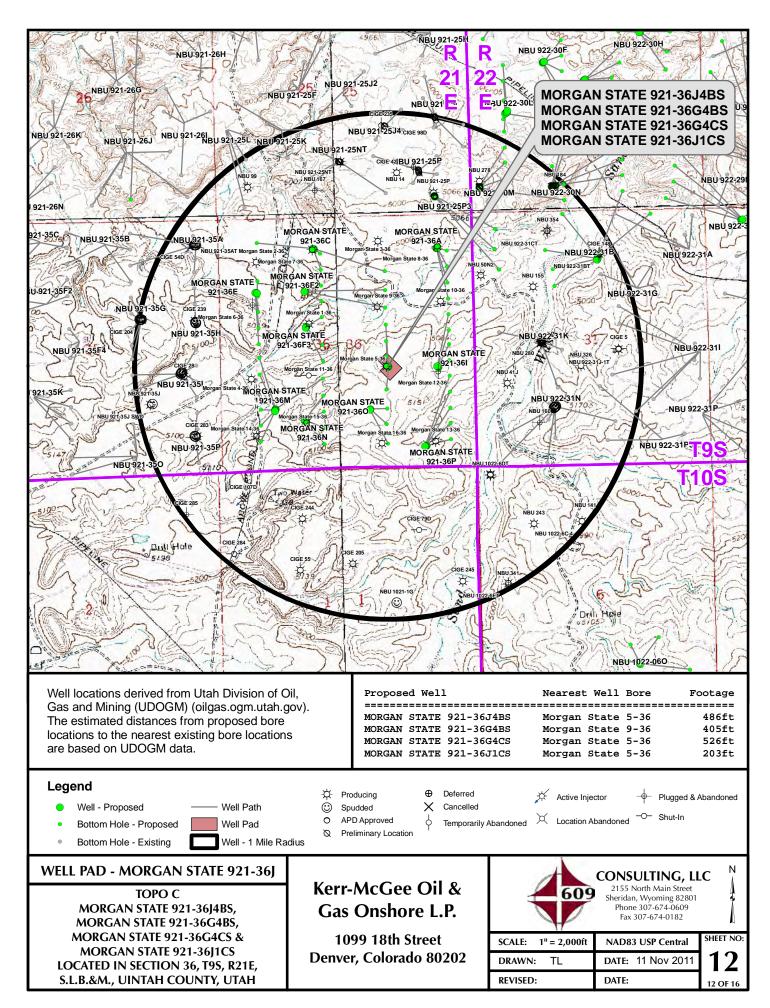
CONSULTING, LLC Sheridan WY 82801

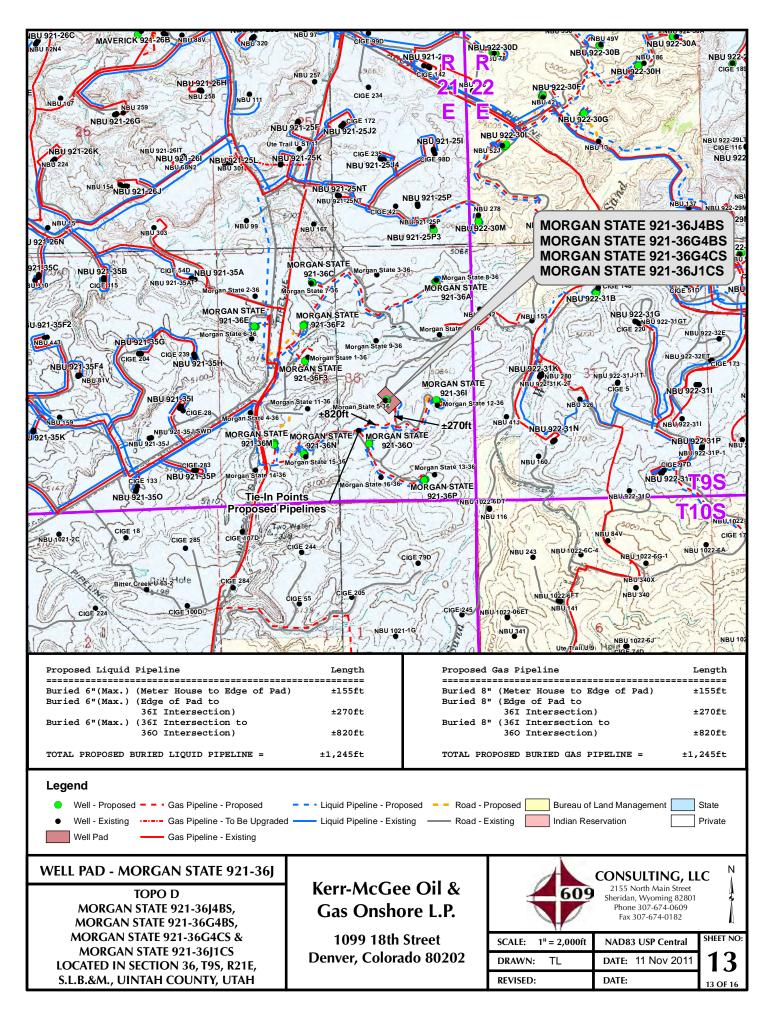
2155 North Main Street Phone 307-674-0609 Fax 307-674-0182

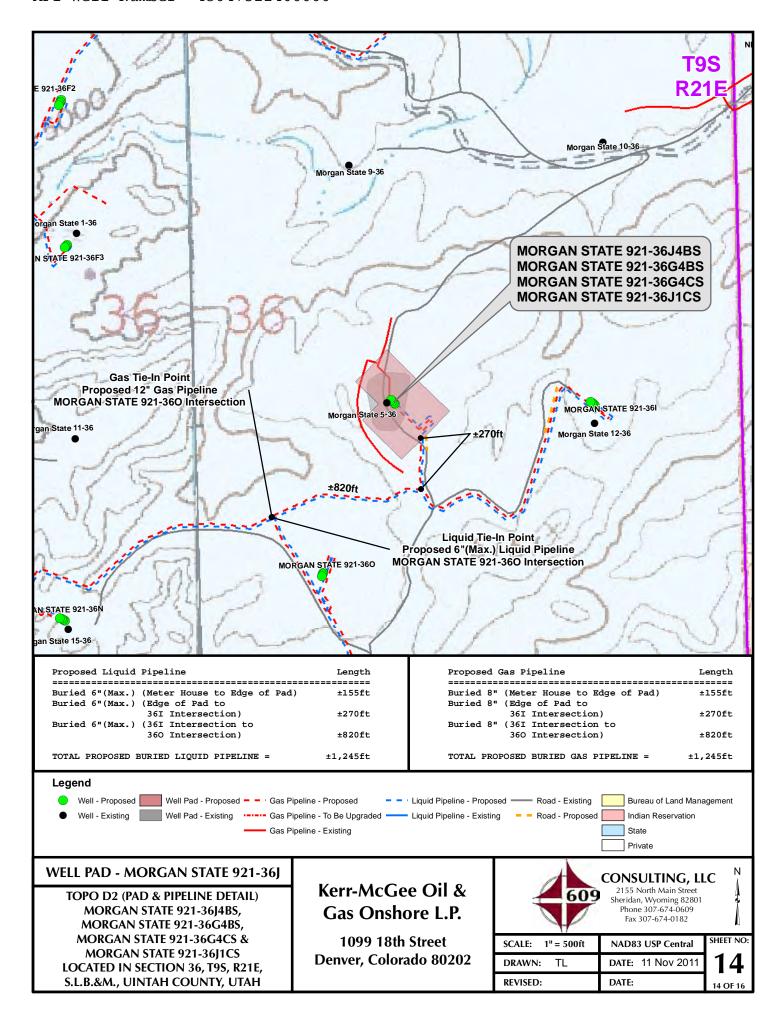
TIMBERLIN	VE (4	135) 789-1365
	& LAND SURVEYING West - Vernal, utah 84	*
DATE PHOTOS TAKEN: 10-17-11	PHOTOS TAKEN BY: J.W.	SHEET NO:
DATE DRAWN: 11-1-11	DRAWN BY: J.G.C	9
Date Last Revised:		9 OF 16

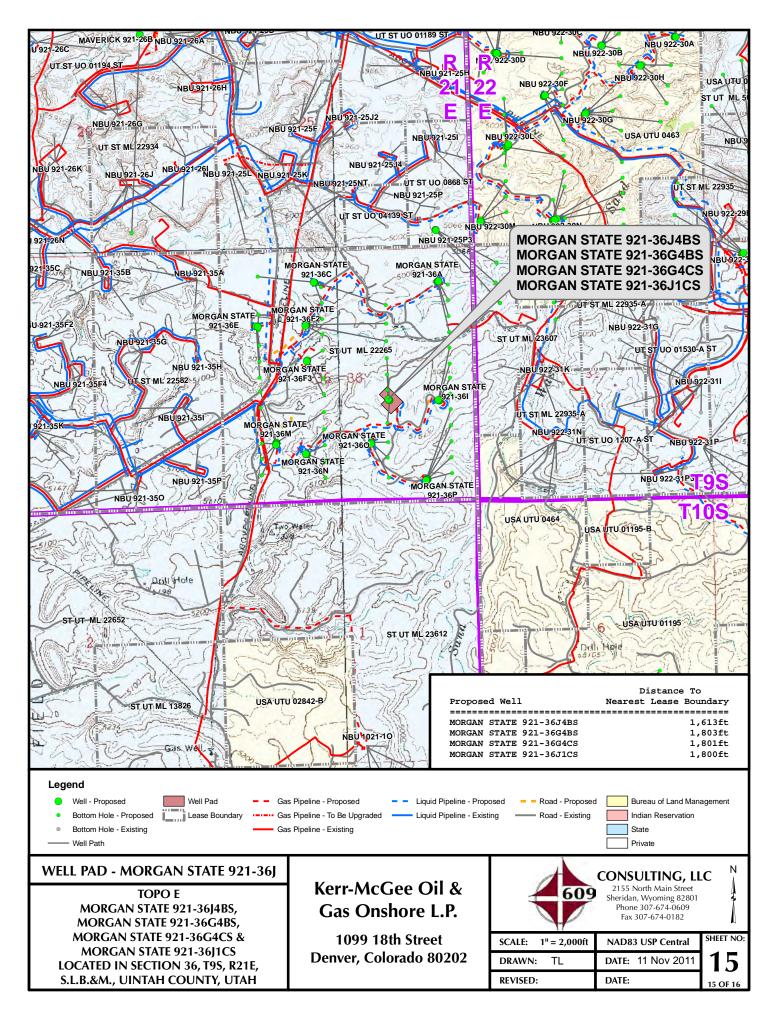












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – MORGAN STATE 921-36J WELLS – MORGAN STATE 921-36J4BS, MORGAN STATE 921-36G4BS, MORGAN STATE 921-36G4CS & MORGAN STATE 921-36J1CS Section 36, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.2 miles to a Class D County Road to the northeast. Exit left and proceed in a northeasterly direction along the Class D County Road approximately 0.1 miles to a second Class D County Road to the southeast. Exit right and proceed in a southeasterly direction along the second Class D County Road approximately 1.0 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction approximately 0.4 miles to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 43.2 miles in a southerly direction.

SHEET 16 OF 16

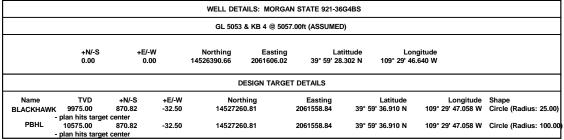
API Well Number: 43047 520 2046 00 TAB - UTM (feet), NAD27, Zone 12N

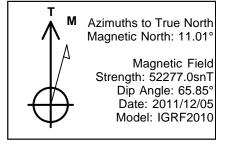
Site: MORGAN STATE 921-36J PAD Well: MORGAN STATE 921-36G4BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY





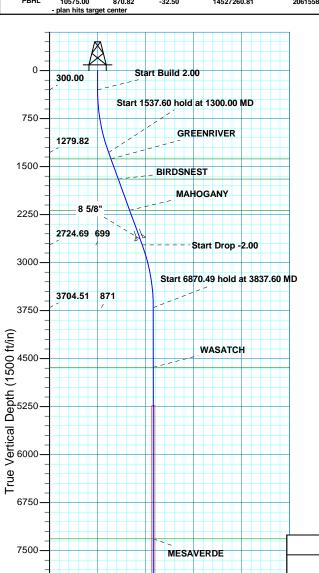


Plan: PLAN #1 PRELIMINARY (MORGAN STATE 921-36G4BS/OH)

Date: 8:13, December 05 2011

Created By: RobertScott

RECEIVED:



TD at 10708.10

2250

3000

1500

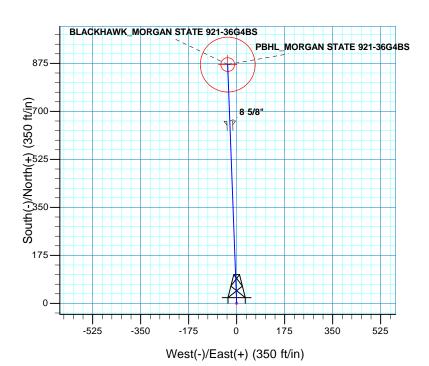
Vertical Section at 357.86° (1500 ft/in)

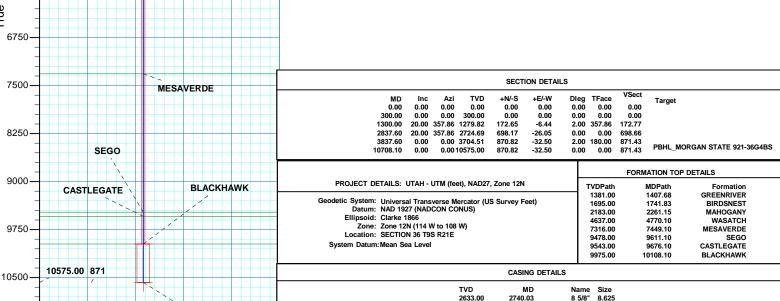
750

11250

Scientific Drilling

Rocky Mountain Operations





API Well Number: 43047522460000



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36J PAD MORGAN STATE 921-36G4BS

OH

Plan: PLAN #1 PRELIMINARY

Standard Planning Report

05 December, 2011



API Well Number: 43047522460000



SDI Planning Report



EDM5000-RobertS-Local Database: Company:

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36J PAD

Well: MORGAN STATE 921-36G4BS

Wellbore: OH

Project:

Site:

PLAN #1 PRELIMINARY Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36G4BS

GL 5053 & KB 4 @ 5057.00ft (ASSUMED) GL 5053 & KB 4 @ 5057.00ft (ASSUMED)

True

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum: Mean Sea Level

MORGAN STATE 921-36J PAD, SECTION 36 T9S R21E Site

Northing: 14,526,390.66 usft Site Position: Latitude: 39° 59' 28.302 N From: Lat/Long Easting: 2,061,606.02 usft Longitude: 109° 29' 46.640 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 0.97 13.200 in

Well MORGAN STATE 921-36G4BS, 2104 FSL 1770 FEL

Well Position +N/-S 0.00 ft 14,526,390.66 usft Latitude: 39° 59' 28.302 N Northing: +E/-W 0.00 ft Easting: 2,061,606.02 usft Longitude: 109° 29' 46.640 W

Position Uncertainty 0.00 ft Wellhead Elevation: **Ground Level:** 5,053.00 ft

Wellbore ОН Magnetics **Model Name** Sample Date Declination **Dip Angle** Field Strength (nT) (°) (°) IGRF2010 2011/12/05 11.01 65.85 52.277

PLAN #1 PRELIMINARY Design Audit Notes: Version: Phase: PLAN Tie On Depth: 0.00 **Vertical Section:** Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 0.00 0.00 0.00 357.86

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,300.00	20.00	357.86	1,279.82	172.65	-6.44	2.00	2.00	0.00	357.86	
2,837.61	20.00	357.86	2,724.69	698.17	-26.05	0.00	0.00	0.00	0.00	
3,837.61	0.00	0.00	3,704.51	870.82	-32.50	2.00	-2.00	0.00	180.00	
10,708.10	0.00	0.00	10,575.00	870.82	-32.50	0.00	0.00	0.00	0.00	PBHL_MORGAN STA



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36J PAD MORGAN STATE 921-36G4BS

Wellbore: OH

Project:

Site:

Well:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36G4BS GL 5053 & KB 4 @ 5057.00ft (ASSUMED) GL 5053 & KB 4 @ 5057.00ft (ASSUMED)

True

	PLAN #1 PRE								
ed Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 2	.00								
400.00	2.00	357.86	399.98	1.74	-0.07	1.75	2.00	2.00	0.00
500.00	4.00	357.86	499.84	6.97	-0.26	6.98	2.00	2.00	0.00
600.00	6.00	357.86	599.45	15.68	-0.59	15.69	2.00	2.00	0.00
700.00	8.00	357.86	698.70	27.86	-1.04	27.88	2.00	2.00	0.00
800.00	10.00	357.86	797.47	43.49	-1.62	43.52	2.00	2.00	0.00
900.00	12.00	357.86	895.62	62.56	-2.33	62.60	2.00	2.00	0.00
1,000.00	14.00	357.86	993.06	85.04	-3.17	85.10	2.00	2.00	0.00
1,100.00	16.00	357.86	1,089.64	110.90	-4.14	110.98	2.00	2.00	0.00
1,200.00	18.00	357.86	1,185.27	140.12	-5.23	140.21	2.00	2.00	0.00
1,300.00	20.00	357.86	1,279.82	172.65	-6.44	172.77	2.00	2.00	0.00
) hold at 1300.00								
1,400.00	20.00	357.86	1,373.78	206.83	-7.72	206.97	0.00	0.00	0.00
1,407.68	20.00	357.86	1,381.00	209.45	-7.82	209.60	0.00	0.00	0.00
GREENRIVE	R								
1,500.00	20.00	357.86	1,467.75	241.00	-8.99	241.17	0.00	0.00	0.00
1,600.00	20.00	357.86	1,561.72	275.18	-10.27	275.37	0.00	0.00	0.00
1,700.00	20.00	357.86	1,655.69	309.36	-11.54	309.58	0.00	0.00	0.00
1,741.83	20.00	357.86	1,695.00	323.66	-12.08	323.88	0.00	0.00	0.00
BIRDSNEST									
1,800.00	20.00	357.86	1,749.66	343.54	-12.82	343.78	0.00	0.00	0.00
1,900.00	20.00	357.86	1,843.63	377.72	-14.10	377.98	0.00	0.00	0.00
2,000.00	20.00	357.86	1,937.60	411.90	-15.37	412.18	0.00	0.00	0.00
2,100.00	20.00	357.86	2,031.57	446.07	-16.65	446.38	0.00	0.00	0.00
2,200.00	20.00	357.86	2,125.54	480.25	-17.92	480.59	0.00	0.00	0.00
2,261.15	20.00	357.86	2,183.00	501.15	-18.70	501.50	0.00	0.00	0.00
MAHOGANY		007.00	2,100.00	001.10	10.70	001.00	0.00	0.00	0.00
2,300.00	20.00	357.86	2,219.51	514.43	-19.20	514.79	0.00	0.00	0.00
2,400.00	20.00	357.86	2,313.48	548.61	-20.47	548.99	0.00	0.00	0.00
2,500.00	20.00	357.86	2,407.45	582.79	-21.75	583.19	0.00	0.00	0.00
2,600.00	20.00	357.86	2,501.42	616.96	-23.02	617.39	0.00	0.00	0.00
			,						
2,700.00	20.00	357.86	2,595.39	651.14	-24.30	651.60	0.00	0.00	0.00
2,740.03	20.00	357.86	2,633.00	664.82	-24.81	665.29	0.00	0.00	0.00
8 5/8"	00.00	257.00	0.000.05	005.00	05.57	005.00	0.00	0.00	0.00
2,800.00	20.00	357.86 357.86	2,689.35	685.32	-25.57	685.80	0.00	0.00	0.00
2,837.61	20.00	357.86	2,724.69	698.17	-26.05	698.66	0.00	0.00	0.00
Start Drop -2		257.00	0.700.55	740.00	00.00	740.00	0.00	0.00	0.00
2,900.00	18.75	357.86	2,783.55	718.86	-26.83	719.36	2.00	-2.00	0.00
3,000.00	16.75	357.86	2,878.79	749.33	-27.96	749.85	2.00	-2.00	0.00
3,100.00	14.75	357.86	2,975.02	776.45	-28.97	776.99	2.00	-2.00	0.00
3,200.00	12.75	357.86	3,072.15	800.21	-29.86	800.77	2.00	-2.00	0.00
3,300.00	10.75	357.86	3,170.05	820.56	-30.62	821.13	2.00	-2.00	0.00
3,400.00	8.75	357.86	3,268.60	837.49	-31.25	838.07	2.00	-2.00	0.00
3,500.00	6.75	357.86	3,367.68	850.97	-31.75	851.56	2.00	-2.00	0.00
3,600.00	4.75	357.86	3,467.17	860.98	-32.13	861.58	2.00	-2.00	0.00
3,700.00	2.75	357.86	3,566.96	867.52	-32.37	868.12	2.00	-2.00	0.00
3,800.00	0.75	357.86	3,666.90	870.57	-32.49	871.18	2.00	-2.00	0.00
3,837.61	0.00	0.00	3,704.51	870.82	-32.50	871.43	2.00	-2.00	0.00
	hold at 3837.60								



SDIPlanning Report



Database: EDM5000-RobertS-Local
Company: US ROCKIES REGION P
Project: UTAH - UTM (feet), NAD2

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36J PAD MORGAN STATE 921-36G4BS

Wellbore: OH

Site:

Well:

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36G4BS GL 5053 & KB 4 @ 5057.00ft (ASSUMED) GL 5053 & KB 4 @ 5057.00ft (ASSUMED)

True

Design:	PLAN #1 PRE	LIMINARI							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
3,900.00	0.00	0.00	3,766.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,000.00	0.00	0.00	3,866.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,100.00	0.00	0.00	3,966.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,200.00	0.00	0.00	4,066.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,300.00	0.00	0.00	4,166.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,400.00	0.00	0.00	4,266.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,500.00	0.00	0.00	4,366.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,600.00	0.00	0.00	4,466.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,700.00	0.00	0.00	4,566.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,770.10 WASATCH	0.00	0.00	4,637.00	870.82	-32.50	871.43	0.00	0.00	0.00
4,800.00	0.00	0.00	4,666.90	870.82	-32.50	871.43	0.00	0.00	0.00
4,900.00	0.00	0.00	4,766.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,000.00	0.00	0.00	4,866.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,100.00	0.00	0.00	4,966.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,200.00	0.00	0.00	5,066.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,300.00	0.00	0.00	5,166.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,400.00	0.00	0.00	5,266.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,500.00	0.00	0.00	5,366.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,600.00	0.00	0.00	5,466.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,700.00	0.00	0.00	5,566.90	870.82	-32.50	871.43	0.00	0.00	0.00
5,800.00 5,900.00	0.00 0.00	0.00 0.00 0.00	5,666.90 5,766.90	870.82 870.82	-32.50 -32.50	871.43 871.43	0.00 0.00	0.00 0.00	0.00 0.00
6,000.00	0.00	0.00	5,866.90	870.82	-32.50	871.43	0.00	0.00	0.00
6,100.00	0.00	0.00	5,966.90	870.82	-32.50	871.43	0.00	0.00	0.00
6,200.00 6,300.00	0.00	0.00	6,066.90 6,166.90	870.82 870.82	-32.50 -32.50	871.43 871.43	0.00	0.00	0.00
6,400.00	0.00	0.00	6,266.90	870.82	-32.50	871.43	0.00	0.00	0.00
6,500.00	0.00	0.00	6,366.90	870.82	-32.50	871.43	0.00	0.00	0.00
6,600.00	0.00	0.00	6,466.90	870.82	-32.50	871.43	0.00	0.00	0.00
6,700.00 6,800.00	0.00	0.00 0.00	6,566.90 6,666.90	870.82 870.82	-32.50 -32.50	871.43 871.43	0.00	0.00 0.00	0.00
6,900.00	0.00	0.00	6,766.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,000.00	0.00	0.00	6,866.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,100.00	0.00	0.00	6,966.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,200.00 7,300.00	0.00	0.00	7,066.90 7,166.90	870.82 870.82	-32.50 -32.50	871.43 871.43	0.00	0.00	0.00
7,400.00	0.00	0.00	7,266.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,449.10	0.00	0.00	7,316.00	870.82	-32.50	871.43	0.00	0.00	0.00
MESAVERDE 7,500.00	0.00	0.00	7,366.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,600.00	0.00	0.00	7,466.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,700.00	0.00	0.00	7,566.90	870.82	-32.50	871.43	0.00	0.00	0.00
7,800.00	0.00	0.00	7,666.90	870.82	-32.50	871.43	0.00	0.00	
7,900.00	0.00	0.00	7,766.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,000.00	0.00	0.00	7,866.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,100.00	0.00	0.00	7,966.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,200.00	0.00	0.00	8,066.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,300.00	0.00	0.00	8,166.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,400.00	0.00	0.00	8,266.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,500.00	0.00	0.00	8,366.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,600.00	0.00	0.00	8,466.90	870.82	-32.50	871.43	0.00	0.00	0.00
8,700.00 8,800.00	0.00 0.00 0.00	0.00 0.00 0.00	8,566.90 8,666.90	870.82 870.82	-32.50 -32.50 -32.50	871.43 871.43	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00



SDI Planning Report



Database: Company: Project: EDM5000-RobertS-Local

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36J PAD

Site:MORGAN STATE 921-36J PADWell:MORGAN STATE 921-36G4BS

Wellbore: OH

Design: PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36G4BS GL 5053 & KB 4 @ 5057.00ft (ASSUMED) GL 5053 & KB 4 @ 5057.00ft (ASSUMED)

True

ined Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
8,900.00 9,000.00 9,100.00	0.00 0.00 0.00	0.00 0.00 0.00	8,766.90 8,866.90 8,966.90	870.82 870.82 870.82	-32.50 -32.50 -32.50	871.43 871.43 871.43	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
9,200.00 9,300.00 9,400.00 9,500.00 9,600.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	9,066.90 9,166.90 9,266.90 9,366.90 9,466.90	870.82 870.82 870.82 870.82 870.82	-32.50 -32.50 -32.50 -32.50	871.43 871.43 871.43 871.43	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
9,611.10 SEGO	0.00	0.00	9,478.00	870.82	-32.50	871.43	0.00	0.00	0.00
9,676.10	0.00	0.00	9,543.00	870.82	-32.50	871.43	0.00	0.00	0.00
9,700.00 9,800.00 9,900.00	0.00 0.00 0.00	0.00 0.00 0.00	9,566.90 9,666.90 9,766.90	870.82 870.82 870.82	-32.50 -32.50 -32.50	871.43 871.43 871.43	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
10,000.00 10,100.00 10,108.10	0.00 0.00 0.00	0.00 0.00 0.00	9,866.90 9,966.90 9,975.00	870.82 870.82 870.82	-32.50 -32.50 -32.50	871.43 871.43 871.43	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
		K_MORGAN ST							
10,200.00 10,300.00	0.00 0.00	0.00 0.00	10,066.90 10,166.90	870.82 870.82	-32.50 -32.50	871.43 871.43	0.00 0.00	0.00 0.00	0.00 0.00
10,400.00 10,500.00 10,600.00 10,700.00 10,708.10	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	10,266.90 10,366.90 10,466.90 10,566.90 10,575.00	870.82 870.82 870.82 870.82 870.82	-32.50 -32.50 -32.50 -32.50 -32.50	871.43 871.43 871.43 871.43 871.43	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BLACKHAWK_MORGAI - plan hits target cen - Circle (radius 25.00		0.00	9,975.00	870.82	-32.50	14,527,260.81	2,061,558.84	39° 59' 36.910 N	109° 29' 47.058 W
PBHL_MORGAN STATE - plan hits target cen - Circle (radius 100.0		0.00	10,575.00	870.82	-32.50	14,527,260.81	2,061,558.84	39° 59′ 36.910 N	109° 29' 47.058 W

Casing Points					
	Measured	Vertical		Casing	Hole
	Depth	Depth		Diameter	Diameter
	(ft)	(ft)	Name	(in)	(in)
	2,740.03	2,633.00 8	/8"	8.625	11.000

API Well Number: 43047522460000



SDI Planning Report



Database: Company: Project:

Site:

Well:

EDM5000-RobertS-Local

MORGAN STATE 921-36G4BS

US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N MORGAN STATE 921-36J PAD

Wellbore: ОН

Design:

PLAN #1 PRELIMINARY

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well MORGAN STATE 921-36G4BS GL 5053 & KB 4 @ 5057.00ft (ASSUMED)

GL 5053 & KB 4 @ 5057.00ft (ASSUMED) True

ormations								
	Measured Depth (ft)	Vertical Depth (ft)		Name	Lithology	Dip (°)	Dip Direction (°)	
	1,407.68	1,377.00	GREENRIVER					
	1,741.83	1,691.00	BIRDSNEST					
	2,261.15	2,179.00	MAHOGANY					
	4,770.10	4,633.00	WASATCH					
	7,449.10	7,312.00	MESAVERDE					
	9,611.10	9,474.00	SEGO					
	9,676.10	9,539.00	CASTLEGATE					
	10,108.10	9,971.00	BLACKHAWK					

Plan Annotations				
Measured	Vertical	Local Coor	dinates	
Depth	Depth	+N/-S	+E/-W	
(ft)	(ft)	(ft)	(ft)	Comment
300.00	300.00	0.00	0.00	Start Build 2.00
1,300.00	1,279.82	172.65	-6.44	Start 1537.60 hold at 1300.00 MD
2,837.61	2,724.69	698.17	-26.05	Start Drop -2.00
3,837.61	3,704.51	870.82	-32.50	Start 6870.49 hold at 3837.60 MD
10,708.10	10,575.00	870.82	-32.50	TD at 10708.10

Surface Use Plan of Operations

Morgan State 921-36G4BS/ 921-36G4CS/ 921-36J1CS/ 921-36J4BS

1 of 9

MORGAN STATE 921-36G4BS

 Surface:
 2104 FSL / 1770 FEL
 NWSE
 Lot

 BHL:
 2254 FNL / 1803 FEL
 SWNE
 Lot

MORGAN STATE 921-36G4CS

 Surface:
 2111 FSL / 1777 FEL
 NWSE
 Lot

 BHL:
 2626 FSL / 1801 FEL
 NWSE
 Lot

MORGAN STATE 921-36J1CS

Surface: 2118 FSL / 1784 FEL NWSE Lot BHL: 2303 FSL / 1800 FEL NWSE Lot

MORGAN STATE 921-36J4BS

Surface: 2097 FSL / 1763 FEL NWSE Lot BHL: 1613 FSL / 1817 FEL NWSE Lot

Pad: MORGAN STATE 921-36J PAD

Section 36 T9S R21E Mineral Lease: ML-22265

Uintah County, Utah

Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. **Existing Roads**:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain existing roads in a condition that is the same as or better than before operations began and in a safe and usable condition. Maintenance of existing roads will continue until final abandonment and reclamation of well pads and/or other facilities. The road maintenance may include, but is not limited to, blading, ditching, culvert installation/cleanout, surfacing, and dust control.

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All disturbances located in the same corridor will overlap each other to the maximum extent possible; in no case will the maximum disturbance width of the access road and utility corridors exceed 50', unless otherwise approved.

B. Planned Access Roads:

Approximately ± 65 ' (0.01 miles) of proposed road re-route is proposed (see Topo Map B). Applicable Uintah County encroachment and/or pipeline crossing permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.

C. <u>Location of Existing and Proposed Facilities</u>:

This pad will expand the existing pad for the Morgan State 5-36. The Morgan State 5-36 well location is a producing well according to Utah Division of Oil, Gas and Mining (UDOGM) records as of December 5, 2011.

Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is $\pm 1,245$ ' and the individual segments are broken up as follows:

- $\pm 155'$ (0.03 miles) –New 8" buried gas pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 270'$ (0.05 miles) –New 8" buried gas pipeline from the edge of pad to the 921-36I intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 820'$ (0.2 miles) –New 8" buried gas pipeline from the 921-36I intersection to the 921-36O intersection. Please refer to Topo D2 Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 1,245$ ' and the individual segments are broken up as follows:

- ±155' (0.03 miles) –New 6" buried liquid pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±270' (0.05 miles) –New 6" buried liquid pipeline from the edge of pad to the 921-36I intersection. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 820'$ (0.2 miles) –New 6" buried liquid pipeline from the 921-36I intersection to the 921-36O intersection. Please refer to Topo D2 Pad and Pipeline Detail.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

The proposed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same trench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

D. <u>Location and Type of Water Supply</u>:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Ouray #1 SWD in Sec. 1 T9S R21E NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 33 T9S R21E NBU 921-34L SWD in Sec. 34 T9S R21E

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Unless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the system.

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during drilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.

For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.

G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placement, seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/

completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit.

Final Reclamation

Final reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

Morgan State 921-36G4BS/ 921-36G4CS/ 921-36J1CS/ 921-36J4BS

Surface Use Plan of Operations 8 of 9

L. Other Information:

None

Morgan State 921-36G4BS/ 921-36G4CS/ 921-36J1CS/ 921-36J4BS

9 of 9

M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

December 19, 2011

Date



Kerr-McGee Oil & Gas Onshore LP PO Box 173779 DENVER, CO 80217-3779

December 14, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Directional Drilling R649-3-11 Morgan State 921-36G4BS

T9S-R21E

Section 36: NWSE (Surface), SWNE (Bottom Hole)

Surface: 2104' FSL, 1770' FEL Bottom Hole: 2254' FNL, 1803' FEL

Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling.

- Kerr-McGee is permitting this well as a directional well in order to minimize surface disturbance. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to utilize the existing roads and pipelines in the area.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information, Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to R649-3-11.

Sincerely,

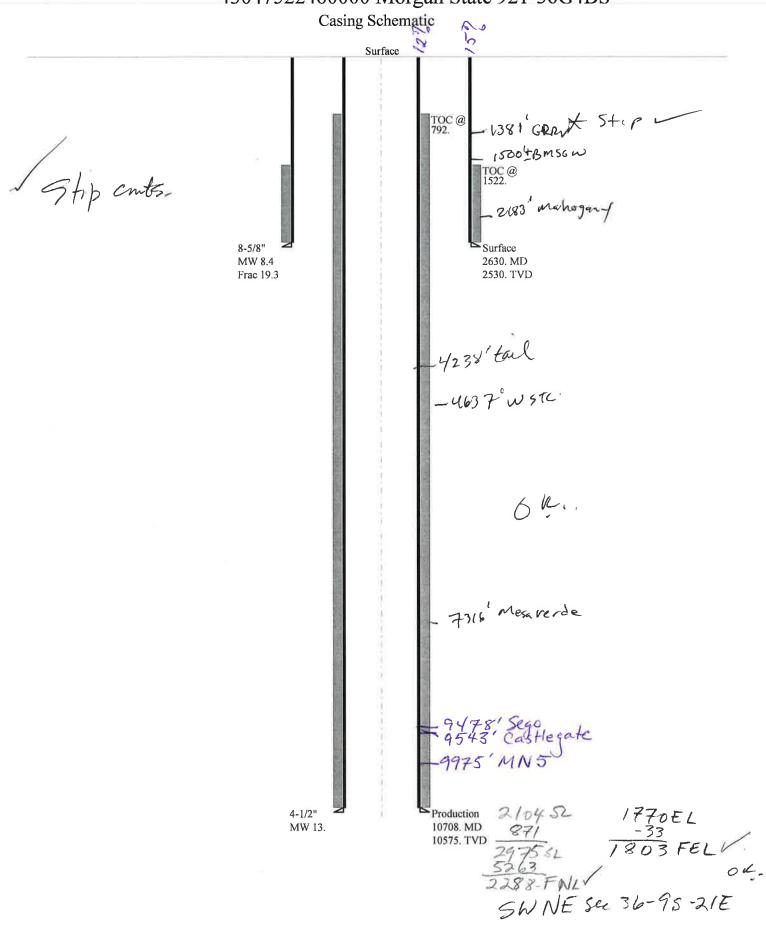
KERR-MCGEE OIL & GAS ONSHORE LP

Joe Matney Sr. Staff Landman

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. Morgan State 921-36G4BS 43047522460000

Well Name		KERR-MCGEE C	IL & GAS ONSHO	RE, L.F	P. Morgan S	State 92	1-36G4B5	<u>.</u>	
String		Surf	Prod					ī	
Casing Size(")		8.625	4.500					ī	
Setting Depth (TVD)		2630	10575					ī	
Previous Shoe Setting Dept	h (TVD)	0	2630					<u> </u>	
Max Mud Weight (ppg)		8.4	13.0					<u> </u>	
BOPE Proposed (psi)		500	5000					<u>=</u> i	
Casing Internal Yield (psi)		3390	7780					<u>-</u>	
Operators Max Anticipated	Pressure (psi)	6980	12.7					<u>-</u>	
Calculations		Surf Stri	na				8.625	"	
		52*Setting D	enth	*MW=	1149	0.023			
			oz setting z	Сри	112 11	1149		BOPE Adequ	nate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	epth)=	833	_		air drill
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing D	41.5	570			Reasonable depth in area
					• /	370		<u> </u>	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	oe D	epth)=	570	==	NO I	i
Required Casing/BOPE Tes	st Pressure=					2373	=	psi	
*Max Pressure Allowed @ Previous Casing Shoe=		Shoe=				0		psi *Assu	mes 1psi/ft frac gradient
	_					<u> </u>			
Calculations		Prod Str					4.500	"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=	7149			
MASP (C.) (2)		M DII	D (0.10*C		41.	_	_		nate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max BHP-(0.12*Setting Depth)=		-	5880	=	NO			
MASP (Gas/Mud) (psi)		Мах ВН	P-(0.22*Setti	ing D	epth)=	4823		<u> </u>	OK STATE OF THE ST
Pressure At Previous Shoe	May BHD 22*(S	atting Danth	Dravious Sh	oo D	enth)-				xpected Pressure Be Held At Previous Shoe?
Required Casing/BOPE Tes		ctting Depth	- Tievious Si	100 D	cpin)=	5401	=	!	Reasonable
		Shoo-				5000	_	psi *Assu	mes 1psi/ft frac gradient
*Max Pressure Allowed @ 1	r revious Casing i	Silve=				2630		psi *Assu	mes Tpsi/it frac gradient
Calculations		String						"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=				
								BOPE Adequ	uate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ing D	epth)=			NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ing D	epth)=			NO	
								*Can Full E	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	·	etting Depth	- Previous Sh	ioe D	epth)=		_	NO	
Required Casing/BOPE Tes								psi	
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=						psi *Assu	mes 1psi/ft frac gradient
Calculations		String						"	
Max BHP (psi)		.0	52*Setting D	epth	*MW=				
								BOPE Adequ	nate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ng D	epth)=			NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng D	epth)=			NO	
								*Can Full E	xpected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	<u> </u>	etting Depth	- Previous Sh	oe D	epth)=			NO	
Required Casing/BOPE Tes	st Pressure=							psi	
*Max Pressure Allowed @]	Previous Casing S	Shoe=						psi *Assu	mes 1psi/ft frac gradient

43047522460000 Morgan State 921-36G4BS



43047522460000 Morgan State 921-36G4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Production String type: Project ID:

UINTAH COUNTY Location:

43-047-52246

Departure at shoe:

Maximum dogleg:

Inclination at shoe:

Design parameters: Minimum design factors: **Environment:**

<u>Collapse</u> Collapse: H2S considered? No Mud weight: 13.000 ppg Design factor 1.125 Surface temperature: 74 °F 222 °F Internal fluid density: 1.500 ppg Bottom hole temperature:

1.40 °F/100ft Temperature gradient: Minimum section length: 100 ft

Burst: Design factor 1.00 Cement top:

792 ft Burst

Max anticipated surface

pressure: 4,815 psi 0.220 psi/ft Internal gradient: Directional Info - Build & Hold **Tension:** Calculated BHP 1.80 (J) 7,141 psi 8 Round STC: Kick-off point

1.80 (J) 8 Round LTC: No backup mud specified. **Buttress:** 1.60 (J) Premium: 1.50 (J)

Body yield: 1.60 (B)

> Tension is based on air weight. Neutral point: 8,653 ft

Estimated cost: 159,501 (\$)

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	5000	4.5	11.60	HCP-110	DQX	4867	5000	3.875	132000
1	5708	4.5	11.60	HCP-110	LT&C	10575	10708	3.875	27501
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
2	2908	8112	2.790	5886	10690	1.82	122.7	367.2	2.99 B
1	6317	8650	1.369	7141	10690	1.50	66.2	279	4.21 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 15,2012 Salt Lake City, Utah

300 ft

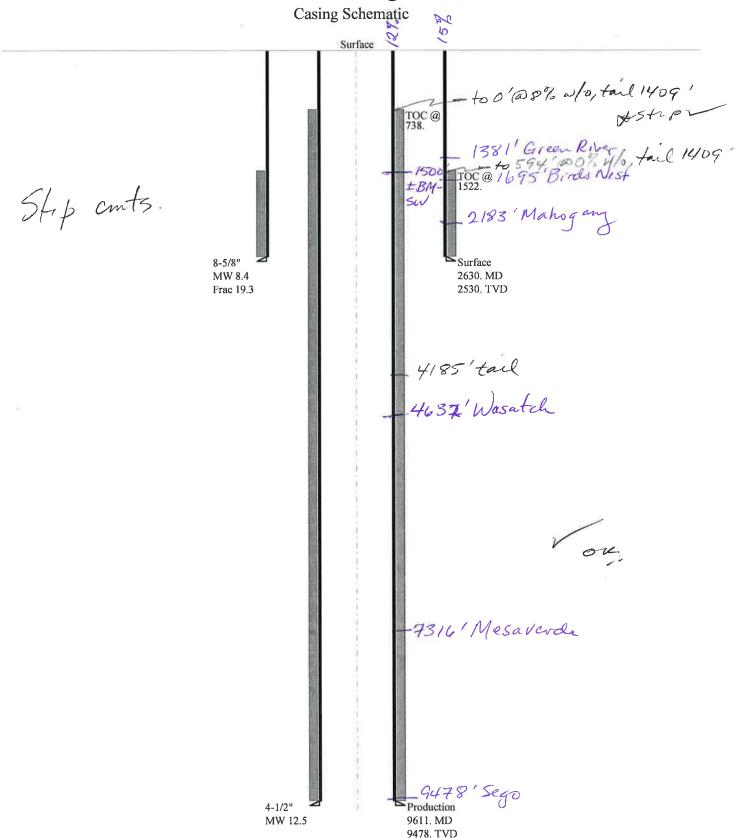
871 ft

2 °/100ft 0 °

Collapse is based on a vertical depth of 10575 ft, a mud weight of 13 ppg. An internal gradient of .078 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

43047522460000 Morgan State 921-36G4BS



Well name:

43047522460000 Morgan State 921-36G4BS

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Surface

Project ID:

43-047-52246

Location:

UINTAH

COUNTY

Minimum design factors: **Environment:**

Collapse

Mud weight: 8.400 ppg Design is based on evacuated pipe.

Collapse: Design factor

1.125

H2S considered? Surface temperature:

No 74 °F

Bottom hole temperature: Temperature gradient:

109 °F 1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

1.80 (J)

1.70 (J)

1.60 (J)

1.50 (J)

1.50 (B)

Cement top:

1,522 ft

300 ft

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

Design parameters:

2,226 psi 0.120 psi/ft

2,530 psi

No backup mud specified.

Tension: 8 Round STC:

8 Round LTC: Buttress:

Premium: Body yield:

Tension is based on air weight. Neutral point: 2,297 ft Directional Info - Build & Drop

Kick-off point Departure at shoe:

628 ft 2 °/100ft Maximum dogleg: Inclination at shoe: 20°

Re subsequent strings:

Next setting depth: Next mud weight: Next setting BHP:

9,478 ft 12.500 ppg 6,154 psi 19.250 ppg

Fracture mud wt: Fracture depth: 2,530 ft Injection pressure: 2,530 psi

Run Seq	Segment Length	Size	Nominal Weight	Grade	End Finish	True Vert Depth	Measured Depth	Drift Diameter	Est. Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
1	2630	8.625	28.00	1-55	LT&C	2530	2630	7.892	104148
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
Seq			-		•	_		_	•
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
1	1104	1880	1.703	2530	3390	1.34	70.8	348	4.91 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 15,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 2530 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43047522460000 Morgan State 921-36G4BS

Minimum design factors:

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Production

Project ID:

Location:

UINTAH COUNTY 43-047-52246

Design parameters:

Collapse

Mud weight:

12.500 ppg

Design is based on evacuated pipe.

Collapse: Design factor

1.125

Environment: H2S considered?

Surface temperature:

No 74 °F 207 °F

Bottom hole temperature: Temperature gradient:

1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

1.80 (J)

1.80 (J)

1.60 (J)

Cement top:

738 ft

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

4,069 psi 0.220 psi/ft

6,154 psi

No backup mud specified.

Tension:

8 Round STC: 8 Round LTC: **Buttress:**

Premium: Body yield:

1.50 (J) 1.60 (B)

Tension is based on air weight. Neutral point: 7,840 ft

192,865 (\$)

Directional Info - Build & Drop 300 ft Kick-off point Departure at shoe: 871 ft

Maximum dogleg: 2 °/100ft Inclination at shoe: 0°

Estimated cost:

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length (ft)	Size (in)	Weight (lbs/ft)	Grade	Finish	Depth (ft)	Depth (ft)	Diameter (in)	Cost (\$)
2	5000	4.5	11.60	1-80	DQX	4867	5000	3.875	132000
1	4611	4.5	11.60	1-80	LT&C	9478	9611	3.875	60865
Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (kips)	Tension Strength (kips)	Tension Design Factor
2	3160	5899	1.867	5140	7780	1.51	109.9	267	2.43 J
1	6154	6360	1.033	6154	7780	1.26	53.5	212	3.96 J

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 15,2012 Salt Lake City, Utah

Collapse is based on a vertical depth of 9478 ft, a mud weight of 12.5 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

43047522460000 Morgan State 921-36G4BS Well name:

KERR-MCGEE OIL & GAS ONSHORE, L.P. Operator:

Production

Project ID: String type: 43-047-52246

UINTAH COUNTY Location:

Minimum design factors: **Environment:** Design parameters:

H2S considered? Collapse: Collapse Design factor 1.125 Surface temperature: Mud weight: 12.500 ppg

Internal fluid density: 1,500 ppg Bottom hole temperature: 207 °F Temperature gradient: 1.40 °F/100ft

> Minimum section length: 100 ft

> > 1.60 (B)

Burst: 1.00 Cement top: 738 ft Design factor

Burst

Max anticipated surface pressure: 4,069 psi

0.220 psi/ft Internal gradient: Directional Info - Build & Drop Tension: 300 ft Calculated BHP 6,154 psi 8 Round STC: 1.80 (J) Kick-off point 871 ft

Departure at shoe: 8 Round LTC: 1.80 (J) 1.60 (J) Buttress: Maximum dogleg: No backup mud specified. 1.50 (J) Premium: Inclination at shoe:

Body yield:

Tension is based on air weight.

Neutral point: 7.840 ft

Estimated cost: 192,865 (\$)

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	5000	4.5	11.60	1-80	DQX	4867	5000	3.875	132000
1	4611	4.5	11.60	1-80	LT&C	9478	9611	3.875	60865
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design
•	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
2	2781	5899	2.121	5140	7780	1.51	109.9	267	2.43 J
1	5416	6360	1.174	6154	7780	1.26	53.5	212	3.96 J

Helen Sadik-Macdonald Prepared Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: February 15,2012 Salt Lake City, Utah

No 74 °F

2 °/100ft

0°

Collapse is based on a vertical depth of 9478 ft, a mud weight of 12.5 ppg An internal gradient of .078 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

From: Jim Davis
To: APD APPROVAL

CC: Danielle Piernot; Julie Jacobson

Date: 2/23/2012 3:22 PM

Subject: APD Approval: the Kerr McGee Morgan State wells

The following wells have been approved by SITLA including arch and paleo clearance.

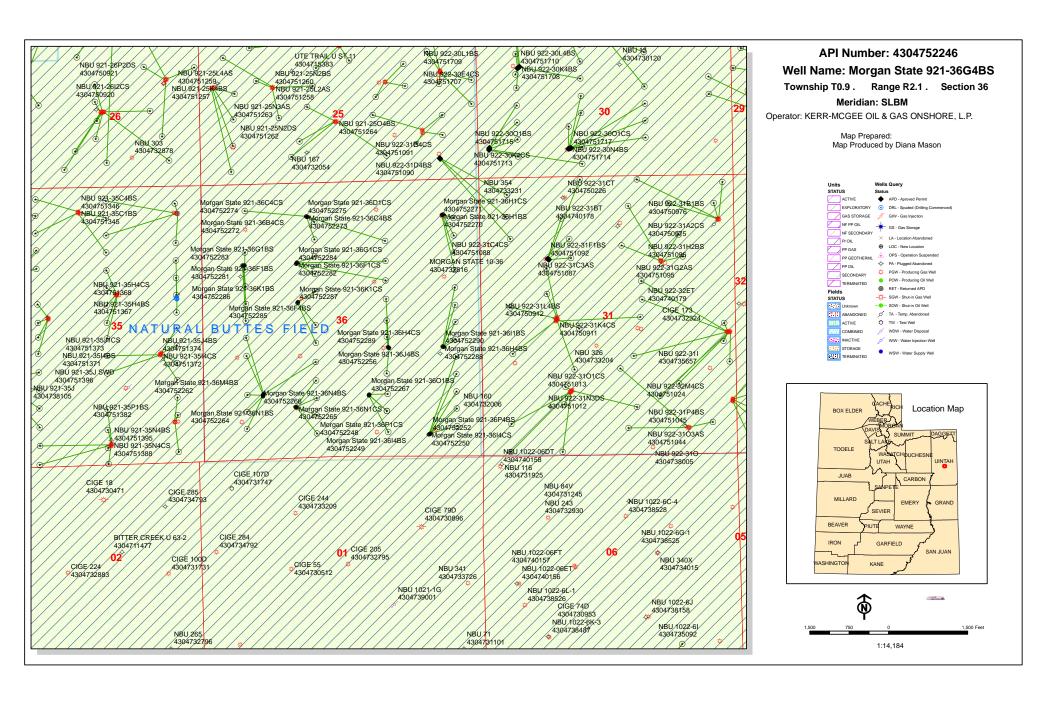
```
Morgan State 921-36G4BS
4304752246
             Morgan State 921-36G4CS
4304752253
4304752255
             Morgan State 921-36J1CS
4304752256
             Morgan State 921-36J4BS
             Morgan State 921-36F1BS
4304752281
4304752282
             Morgan State 921-36F1CS
4304752283
             Morgan State 921-36G1BS
4304752284
             Morgan State 921-36G1CS
             Morgan State 921-36F4BS
4304752285
4304752286
             Morgan State 921-36K1BS
4304752287
             Morgan State 921-36K1CS
             Morgan State 921-36P1BS
4304752247
             Morgan State 921-36P1CS
4304752248
4304752249
             Morgan State 921-36I4BS
             Morgan State 921-36I4CS
4304752250
             Morgan State 921-36P4BS
4304752252
4304752263
             Morgan State 921-36K4CS
4304752264
             Morgan State 921-36N1BS
4304752265
             Morgan State 921-36N1CS
4304752266
             Morgan State 921-36N4BS
4304752276
             Morgan State 921-36D4CS
4304752277
             Morgan State 921-36E1BS
4304752278
             Morgan State 921-36E1CS
             Morgan State 921-36E4BS
4304752279
4304752280
             Morgan State 921-36E4CS
             Morgan State 921-36O4CS
4304752245
             Morgan State 921-36O1CS
4304752254
             Morgan State 921-36O1BS
4304752267
4304752257
             Morgan State 921-36K4BS
4304752258
             Morgan State 921-36L1BS
4304752259
             Morgan State 921-36L1CS
4304752260
             Morgan State 921-36M1BS
4304752261
             Morgan State 921-36M1CS
4304752262
             Morgan State 921-36M4BS
4304752272
             Morgan State 921-36B4CS
4304752273
             Morgan State 921-36C4BS
4304752274
             Morgan State 921-36C4CS
4304752275
             Morgan State 921-36D1CS
```

There are eight more wells on two pads in this section, the 36A pad and the 36I pad, that have not yet been approved. Anadarko is gathering reclamation cost figures on pads similar to those as part of the process of acquiring adequate SITLA bonds.

-Jim

Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov

Phone: (801) 538-5156



ON-SITE PREDRILL EVALUATION

Utah Division of Oil, Gas and Mining

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P.

Well Name Morgan State 921-36G4BS

API Number 43047522460000 APD No 5080 Field/Unit NATURAL BUTTES

Location: 1/4,1/4 NWSE Sec 36 Tw 9.0S Rng 21.0E 2104 FSL 1770 FEL

GPS Coord (UTM) 628313 4427861 Surface Owner

Participants

Sheila Wopsock, Charles Chase, Danielle Piernot, Doyle Holmes, (Anadarko). John Slaugh, Mitch Batty, (Timberline). Jim Davis (SITLA). Alex Hansen (DWR). Chris Jensen and David Hackford, (DOGM).

Regional/Local Setting & Topography

This site is on an existing location, and very little new construction will be necessary.

This location is within the Natural Buttes Unit but this section is not part of the Natural Buttes Unit. It is approximately 14 road miles southeast of Ouray, Utah. The general area is at the head of a long unnamed wash east of Cottonwood Wash. Both washes enter the White River in the same general area, approximately six miles to the north. The area is characterized by rolling hills, which are frequently divided by somewhat gentle draws that drain northerly. This unnamed wash is an ephemeral drainage. No springs, seeps or streams exist in the area. An occasional pond constructed to supply water for cattle and antelope exists. The washes are sometimes rimmed with steep side hills, which have exposed sandstone bedrock cliffs along the rims.

Four new directional wells will be drilled from this location which currently has one well, the Morgan State 5-36. The decision to PA or TA this existing well hasn't been made at this time.

Surface Use Plan

Current Surface Use

Grazing Wildlfe Habitat Existing Well Pad

New Road Miles Well Pad Src Const Material Surface Formation

0 Width 345 Length 455 Onsite UNTA

Ancillary Facilities N

Waste Management Plan Adequate? Y

Environmental Parameters

Affected Floodplains and/or Wetlands N

Flora / Fauna

3/20/2012 Page 1

Prickly pear, wild onion, shadscale, mat saltbrush, Indian ricegrass, halogeton, pepper grass. Principal species present are cheatgrass, black sagebrush, stipa, mesquite grass.

Sheep, antelope, coyote, raptors, small mammals and birds.

Soil Type and Characteristics

Rocky sandy clay loam.

Erosion Issues N

Sedimentation Issues N

Site Stability Issues N

Drainage Diverson Required? N

Berm Required? N

Erosion Sedimentation Control Required? N

Paleo Survey Run? Y Paleo Potental Observed? N Cultural Survey Run? Y Cultural Resources? N

Reserve Pit

Site-Specific Factors	Site Ran	king	
Distance to Groundwater (feet)	> 200	0	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)		20	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
Drill Cuttings	Normal Rock	0	
Annual Precipitation (inches)		0	
Affected Populations			
Presence Nearby Utility Conduits	Not Present	0	
	Final Score	35	1 Sensitivity Level

Characteristics / Requirements

The reserve pit is planned in an area of cut on the south corner of the location. Dimensions are 260' x 120' x 12' deep with two feet of freeboard. Kerr McGee has agreed to line this pit with a 30 mil synthetic liner and a layer of felt sub-liner.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 30 Pit Underlayment Required? Y

Other Observations / Comments

Evaluator	Date / Time
David Hackford	1/11/2012

3/20/2012 Page 2

Application for Permit to Drill Statement of Basis

3/20/2012 Utah Division of Oil, Gas and Mining

Page 1

APD No API WellNo Status Well Type Surf Owner CBM

5080 43047522460000 SITLA GW S No

Operator KERR-MCGEE OIL & GAS ONSHORE, L.P. Surface Owner-APD

Well Name Morgan State 921-36G4BS Unit

Field NATURAL BUTTES Type of Work DRILL

Location NWSE 36 9S 21E S 2104 FSL 1770 FEL GPS Coord

(UTM) 628329E 4427848N

Geologic Statement of Basis

Kerr McGee proposes to set 2,630' of surface casing at this location. The depth to the base of the moderately saline water at this location is estimated to be at a depth of 1,500'. A search of Division of Water Rights records shows one water well within a 10,000 foot radius of the center of Section 36. The well is listed as 2,640 feet deep and used for drilling water. The surface formation at this site is the Uinta Formation. The Uinta Formation is made up of interbedded shales and sandstones. The sandstones are mostly lenticular and discontinuous and should not be a significant source of useable ground water. The proposed casing and cement should adequately protect. Any usable ground water.

Brad Hill **APD Evaluator**

2/1/2012 **Date / Time**

Surface Statement of Basis

The general area is in the central portion of the Natural Buttes Unit. Within this area is the White River and rugged drainages that drain into it. Topography is varied and frequently dissected by short draws or washes, which become overly steep as they approach the White River breaks or rim. Distance to the White River is six miles. The side drainages are dry except for ephemeral flows. No seeps or springs exist in the area. An occasional pond has been constructed to supply water for livestock and antelope. Vernal, Utah is approximately 43.2 miles to the northwest. Access from Vernal is by following Utah State, Uintah County and oilfield development roads.

Four wells will be directionally drilled from this location. They are the Morgan State 921-36G4CS, Morgan State 921-36J4BS, Morgan State 921-36G4BS and the Morgan State 921-36J1CS. The existing location currently has one well. This well is the Morgan State 5-36. The decision to PA or TA this well has not been made at this time. No drainage concerns exist, and no diversions will be needed. The pad as modified should be stable and sufficient for five wells, and is the best site for a location in the immediate area.

New construction will consist of approximately 100 feet on the south, 100 feet on the west, 50 feet on the north, and 75 feet on the east side of the existing location.

Both the surface and minerals are owned by SITLA. Jim Davis of SITLA and Alex Hansen with DWR were invited by email to the pre-site evaluation. Both were present. Kerr McGee personnel were told to consult with SITLA for reclamation standards including seeding mixes to be used.

David Hackford
Onsite Evaluator

1/11/2012 **Date / Time**

RECEIVED: March 20, 2012

Application for Permit to Drill Statement of Basis

Utah Division of Oil, Gas and Mining

Page 2

Conditions of Approval / Application for Permit to Drill

Category Condition

Pits A synthetic liner with a minimum thickness of 16 mils with a felt subliner shall be properly installed

and maintained in the reserve pit.

Pits The reserve pit should be located on the south side of the location.

RECEIVED: March 20, 2012

WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/20/2011 API NO. ASSIGNED: 43047522460000

WELL NAME: Morgan State 921-36G4BS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6156

CONTACT: Danielle Piernot

PROPOSED LOCATION: NWSE 36 090S 210E Permit Tech Review:

> SURFACE: 2104 FSL 1770 FEL Engineering Review:

> **BOTTOM: 2254 FNL 1803 FEL** Geology Review:

COUNTY: UINTAH

LATITUDE: 39.99107 LONGITUDE: -109.49684 **UTM SURF EASTINGS: 628329.00** NORTHINGS: 4427848.00

FIELD NAME: NATURAL BUTTES

LEASE TYPE: 3 - State

LEASE NUMBER: ML 22265 PROPOSED PRODUCING FORMATION(S): BLACKHAWK

SURFACE OWNER: 3 - State **COALBED METHANE: NO**

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

✓ PLAT R649-2-3.

Bond: STATE/FEE - 22013542 Unit:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Drilling Unit Oil Shale 190-13

Board Cause No: Cause 173-24 Water Permit: 43-8496

Effective Date: 10/5/2009 **RDCC Review:**

Siting: 460' Fr Exterior Lease Boundary Fee Surface Agreement

✓ Intent to Commingle R649-3-11. Directional Drill

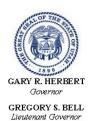
Commingling Approved

Comments: Presite Completed

Stipulations:

3 - Commingling - ddoucet 5 - Statement of Basis - bhill 15 - Directional - dmason 17 - Oil Shale 190-5(b) - dmason 25 - Surface Casing - ddoucet

RECEIVED: March 20, 2012



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: Morgan State 921-36G4BS

API Well Number: 43047522460000

Lease Number: ML 22265 Surface Owner: STATE Approval Date: 3/20/2012

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 173-24. The expected producing formation or pool is the BLACKHAWK Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Commingle:

In accordance with Board Cause No. 173-24, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be cemented to the surface.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27

pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

Additional Approvals:

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

Notification Requirements:

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program
 - contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

Contact Information:

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
 - Requests to Change Plans (Form 9) due prior to implementation
 - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
 - Report of Water Encountered (Form 7) due within 30 days after completion
 - Well Completion Report (Form 8) due within 30 days after completion or

Approved By:

For John Rogers Associate Director, Oil & Gas Sundry Number: 25954 API Well Number: 43047522460000

			FORM 9							
	STATE OF UTAH									
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MINI		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265							
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:							
	oposals to drill new wells, significantly do reenter plugged wells, or to drill horizont nor such proposals.		7.UNIT or CA AGREEMENT NAME:							
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: Morgan State 921-36G4BS							
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522460000							
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18t	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES							
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL			COUNTY: UINTAH							
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridia	an: S	STATE: UTAH							
11. CHEC	11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA									
TYPE OF SUBMISSION		TYPE OF ACTION								
	ACIDIZE	ALTER CASING	CASING REPAIR							
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME							
5/30/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE							
		_								
SUBSEQUENT REPORT Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	☐ NEW CONSTRUCTION							
	OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK							
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION							
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON							
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL							
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION							
Nopon Suite	WILDCAT WELL DETERMINATION	OTHER	OTHER: ACTS/ Pit Refurb							
12. DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all	pertinent details including dates, o	lepths, volumes, etc.							
I .	Gas Onshore, LP is requesting		Approved by the							
pit on this multi-we	Il pad for completion operation	ons. The refurb pit will	Utah Division of							
	the requirements in the COA		Oil, Gas and Mining							
	wells on this pad, Kerr-McGee		Date: May 29, 2012							
	ACTS staging pit to be utilize		- CD 1/0:							
· ·	area. The trucks will unload w		By: thing of Jum							
	placed into the refurbed pit. T any hydro-carbons that may h	• •								
l .	pletion operations before rele									
	it open for 1 year. During this	•								
	pletion fluids will be recycled	_								
	for other frac jobs in the surrounding sections. Thank you.									
	,									
NAME (DI EACE DOINT)	BUONE MUNDE	D TITLE								
NAME (PLEASE PRINT) Danielle Piernot	PHONE NUMBE 720 929-6156	R TITLE Regulatory Analyst								
SIGNATURE N/A		DATE 5/22/2012								

Sundry Number: 25954 API Well Number: 43047522460000



The Utah Division of Oil, Gas, and Mining

- State of UtahDepartment of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047522460000

A synthetic liner with a minimum thickness of 30 mils with a felt subliner shall be properly installed and maintained in the pit.

RECEIVED: May. 29, 2012

Sundry Number: 29185 API Well Number: 43047522460000

	STATE OF UTAH		FORM 9					
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265					
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:					
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36G4BS					
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522460000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PHO n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian:	S	STATE: UTAH					
11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA								
TYPE OF SUBMISSION								
	ACIDIZE	ALTER CASING	CASING REPAIR					
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
Date of Work Completion:	L DEEPEN L	FRACTURE TREAT	☐ NEW CONSTRUCTION					
	☐ OPERATOR CHANGE	PLUG AND ABANDON	☐ PLUG BACK					
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
✓ DRILLING REPORT	L TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
Report Date: 8/21/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
0/21/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
MIRU TRIPLE A BU RAN 14" 36.7# SC	COMPLETED OPERATIONS. Clearly show all per CKET RIG. DRILLED 20" CONDU HEDULE 10 CONDUCTOR PIPE. X. SPUD WELL LOCATION ON A 10:30 HRS.	CTOR HOLE TO 40'. CEMENT WITH 28	epths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 24, 2012					
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulartory Analyst						
SIGNATURE		DATE						
N/A		8/23/2012						

Print Form

BLM - Vernal Field Office - Notification Form

Operat	or KERR-McGEE OIL & GAS	Rig Name/	# BUCK	ET RIG
Submit	tted By J. Scharnowske	Phone Numb	er 720.9	29.6304
	ame/Number MORGAN STA			
	r <u>NWSE</u> Section 36			nge 21E
-	Serial Number ML 22265	<u> </u>		
	Imber 4304752246			
AIIII	4304732240			
-	Notice – Spud is the initial	spudding of t	the well	, not drilling
out bei	low a casing string.			
D	ate/Time <u>08/20/2012</u>	07:00 HRS A	М	РМ 🗌
	– Please report time casir	ng run starts,	not ce	menting
times.)
	urface Casing			/
	ntermediate Casing			
	roduction Casing			
	ner			
	ther			
D	ate/Time 08/26/2012	08:00 HRS A	м	РМ 🗍
BOPE				
☐ Ir	nitial BOPE test at surface	casing point		
□ B(OPE test at intermediate o	asing point		
	0 day BOPE test	J .		
=	ther			
D	ate/Time	Α	м	РМ 🗍
			·· · • • · · · ·	
Remar	KS ESTIMATED DATE AND TIME. PLEAS	E CONTACT KENNY	GATHINGS A	ľ
435.828.0	986 OR LOVEL YOUNG AT 435.781.7051	L		

STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. Box 173779

city DENVER

zip 80217 state CO

Phone Number: (720) 929-6304

Well 1

API Number	Well	Name	QQ	Sec	Twp	Rng	County	
4304752256	Morgan Sta	te 921-36J4BS	NWSE 36 9S		21E	UINTAH		
Action Code	Current Entity Number	New Entity Number	s	pud Da	te	Entity Assignment Effective Date		
Α	9999	18694	1	3/21/201	_	812812012		
Comments: MIRL	J TRIPLE A BUCKET F	RIG.	Bŀ	11: L	iwse	-		

SPUD WELL LOCATION ON 8/21/2012 AT 08:00 HRS.

MURD

Well 2

API Number	Well	Name	QQ	Sec	Twp	Rng Co		County	
4304752246	Morgan State	e 921-36G4BS	NWSE	36	98	21E	21E UINTAH		
Action Code	Current Entity Number	New Entity Number	S	pud Da	te		Entity Assignment Effective Date		
Α	9999	18695	8	8/21/2012		81	<i>ಇ</i> 8	12012	
Commente:	-		Ω.		21.10				

MIRU TRIPLE A BUCKET RIG.

SPUD WELL LOCATION ON 8/21/2012 AT 10:30 HRS.

BHT: SOUR

MURD

Well 3

API Number	Well	Morgan State 921-36G4CS Current Entity Number Number		Sec	Twp	Rng	County
4304752253	Morgan Stat			36	98	21E	UINTAH
Action Code	1			Spud Date		Entity Assignment Effective Date	
Α	9999	18696	8	3/21/201	2	81.	28/2012
\	·		4-				

Comments:

MIRU TRIPLE A BUCKET RIG.

SPUD WELL LOCATION ON 8/21/2012 AT 14:00 HRS.

BHL: nuse MVRD

ACTION CODES:

A - Establish new entity for new well (single well only)

B - Add new well to existing entity (group or unit well)

C - Re-assign well from one existing entity to another existing entity

D - Re-assign well from one existing entity to a new entity

E - Other (Explain in 'comments' section) RECEIVED

JAIME SCHARNOWSKE

Name (Please Print) Jain Schannusk

Signature

REGULATORY ANALYST

8/24/2012

Title

Date

AUG 2 7 2012

Sundry Number: 30273 API Well Number: 43047522460000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCE		FORM 9		
ı	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265				
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36G4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522460000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meric	lian: S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOF	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION		
·	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
✓ DRILLING REPORT					
Report Date: 9/25/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc. FINISHED DRILLING TO 9,620' ON SEPTEMBER 25, 2012. CEMENTED PRODUCTION CASING. RELEASED RIG ON SEPTEMBER 25, 2012. DETAILS OF CASING AND CEMENT WILL BE INCLUDED WITH THE WELL COMPLETION REPORT. WELL IS WAITING ON FINAL COMPLETION ACTIVITIES. ACCEPTED by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 28, 2012					
NAME (PLEASE PRINT)	PHONE NUMB				
Lindsey Frazier	720 929-6857	Regulatory Analyst II			
SIGNATURE N/A		DATE 9/27/2012			

Sundry Number: 29208 API Well Number: 43047522460000

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9	
ι	5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265			
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36G4BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522460000	
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PH n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES	
4. LOCATION OF WELL FOOTAGES AT SURFACE:			COUNTY: UINTAH	
2104 FSL 1770 FEL QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: 3	IIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian	: S	STATE: UTAH	
11. CHECK	K APPROPRIATE BOXES TO INDICATE N	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA	
TYPE OF SUBMISSION		TYPE OF ACTION		
NOTICE OF INTENT Approximate date work will start:	ACIDIZE CHANGE TO PREVIOUS PLANS	ALTER CASING CHANGE TUBING	CASING REPAIR CHANGE WELL NAME	
8/24/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN OPERATOR CHANGE	FRACTURE TREAT PLUG AND ABANDON	NEW CONSTRUCTION PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON	
DRILLING REPORT Report Date:	U TUBING REPAIR WATER SHUTOFF	VENT OR FLARE SI TA STATUS EXTENSION	WATER DISPOSAL APD EXTENSION	
·	☐ WILDCAT WELL DETERMINATION ✓	OTHER	OTHER: Drill Cutting Options	
The operator pro 921-36J Pad which 921-36G4CS,	COMPLETED OPERATIONS. Clearly show all poposes drill cutting options for includes: Morgan State 921-36 Morgan State 921-36. Horgan State 921-36J1CS, and J4BS. Please see attached. The	the Morgan State G4BS, Morgan State d Morgan State	Approved by the Utah Division of Oil, Gas and Mining Date: October 26, 2012 By:	
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBER 720 929-6029	TITLE Regulatory Analyst I		
SIGNATURE N/A	. 20 020 0020	DATE 8/24/2012		

Sundry Number: 29208 API Well Number: 43047522460000



The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

Electronic Permitting System - Sundry Notices

Sundry Conditions of Approval Well Number 43047522460000

Cuttings are to be stored on location and used for future reclamation. Transport of cuttings to a commercial landfarm is not allowed. This is a one- time approval for the four Morgan State wells based on the analytical results for the cuttings.

RECEIVED: Oct. 26, 2012

Sundry Number: 29208 API Well Number: 43047522460000

As part of Kerr-McGee's (KMG) on-going efforts to minimize surface impacts and reduce pad sizes in the Greater Natural Buttes, KMG is pursuing additional alternatives to more efficiently manage drilling and completion operations. As drilling operations progress further towards closed loop operations, larger pad locations and utilizing pits becomes less of a need.

Two additional options KMG would like to implement for managing drill cuttings, are hauling drill cuttings to an approved Utah Department of Oil, Gas and Mining Commercial Landfarm Disposal Facility, and incorporation of drill cuttings into the pad location during interim reclamation practices. In order to accomplish this all cuttings will be either be stock piled on location for use during interim reclamation or they will be stored in above ground containers prior to transport to an approved Utah Department of Oil, Gas and Mining Commercial Landfarm Disposal Facility.

Sundry Number: 31642 API Well Number: 43047522460000

	STATE OF UTAH				FORM 9	
ı	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		3	5.LEASE D	ESIGNATION AND SERIAL NUMBER: 5	
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF INDIA	N, ALLOTTEE OR TRIBE NAME:	
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly reenter plugged wells, or to drill horizen n for such proposals.	/ deep ontal l	en existing wells below laterals. Use APPLICATION	7.UNIT or 0	CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: MORGAN STATE 921-36G4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047522460000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: 3	IIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Mer	idian:	S	STATE: UTAH		
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	T, OR OTH	HER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		ALTER CASING	☐ c.	ASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	☐ c	HANGE WELL NAME	
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	☐ c	ONVERT WELL TYPE	
Date of Work Completion:	DEEPEN	☐ F	FRACTURE TREAT		EW CONSTRUCTION	
	OPERATOR CHANGE	☐ F	PLUG AND ABANDON	PI	LUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME	☐ F	RECLAMATION OF WELL SITE	□ R	ECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	□ т	EMPORARY ABANDON	
	TUBING REPAIR		/ENT OR FLARE	□ w	ATER DISPOSAL	
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	□ A	PD EXTENSION	
11/5/2012	WILDCAT WELL DETERMINATION		OTHER	OTHER:		
	COMPLETED OPERATIONS. Clearly show the month of October 2012	-	_	oil,	cepted by the tah Division of Gas and Mining RECORD ONLY ovember 05, 2012	
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUM 720 929-6304	BER	TITLE Regulartory Analyst			
SIGNATURE N/A			DATE 11/5/2012			

Sundry Number: 32589 API Well Number: 43047522460000

STATE OF UTAH			FORM 9		
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265		
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36G4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047522460000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHC n Street, Suite 600, Denver, CO, 80217 377	DNE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSE Section: 3	IIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meridian:	s	STATE: UTAH		
11. CHECK	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	_ ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
SUBSEQUENT REPORT		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
Date of Work Completion:		FRACTURE TREAT	☐ NEW CONSTRUCTION		
_		PLUG AND ABANDON	PLUG BACK		
SPUD REPORT Date of Spud:		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
✓ DRILLING REPORT		VENT OR FLARE	WATER DISPOSAL		
Report Date: 12/3/2012	□ WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
12/0/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
	COMPLETED OPERATIONS. Clearly show all pe he month of November 2012. V		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY December 03, 2012		
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBER 720 929-6304	TITLE Regulartory Analyst			
SIGNATURE	120 929-0304	DATE			
N/A		12/3/2012			

Sundry Number: 33563 API Well Number: 43047522460000

	STATE OF UTAH				FORM 9	
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING				5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265		
SUNDRY NOTICES AND REPORTS ON WELLS				6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.			7.UNIT or	7.UNIT or CA AGREEMENT NAME:	
1. TYPE OF WELL Gas Well					NAME and NUMBER: N STATE 921-36G4BS	
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047522460000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 5NATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	IIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Meri	dian: :	S	STATE: UTAH		
11. CHECK	APPROPRIATE BOXES TO INDICA	TE N	ATURE OF NOTICE, REPOR	T, OR 01	THER DATA	
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		ALTER CASING		CASING REPAIR	
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	□ c	CHANGE TUBING		CHANGE WELL NAME	
Approximate date work will start.	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS		CONVERT WELL TYPE	
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	□ г	RACTURE TREAT		NEW CONSTRUCTION	
	OPERATOR CHANGE	□ Р	PLUG AND ABANDON		PLUG BACK	
SPUD REPORT	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE		RECOMPLETE DIFFERENT FORMATION	
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL		TEMPORARY ABANDON	
					WATER DISPOSAL	
✓ DRILLING REPORT	L TUBING REPAIR		ENT OR FLARE			
Report Date: 1/3/2013	WATER SHUTOFF	∟ s	SI TA STATUS EXTENSION		APD EXTENSION	
1,0,2010	WILDCAT WELL DETERMINATION		DTHER	OTHER	R:	
No Activity for t	COMPLETED OPERATIONS. Clearly show he month of December 201	2. W	Vell TD at 9,620	oii FOR	umes, etc. Accepted by the Utah Division of I, Gas and Mining R RECORD ONLY anuary 07, 2013	
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB 720 929-6857	BER	TITLE Regulatory Analyst II			
SIGNATURE N/A			DATE 1/3/2013			

Sundry Number: 34257 API Well Number: 43047522460000

	STATE OF UTAH		FORM 9		
1	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: ML 22265		
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: MORGAN STATE 921-36G4BS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047522460000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2104 FSL 1770 FEL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 36 Township: 09.0S Range: 21.0E Merio	lian: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
1/29/2013	WILDCAT WELL DETERMINATION	OTHER	OTHER:		
The subject wel	COMPLETED OPERATIONS. Clearly show a large on production of the submitted was placed on production of the submitted was placed on production of the submitted was people.	on 01/29/2013. The	<u> </u>		
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMB 720 929-6857	ER TITLE Regulatory Analyst II			
SIGNATURE N/A		DATE 1/31/2013			
L + +4 * *		, o ., <u>_</u> o . o			

RECEIVED

STATE OF UTAH AMENDED REPORT FORM 8 DEPARTMENT OF NATURAL RESOURCES MAR 0 5 2013 (highlight changes) DIVISION OF OIL, GAS AND MINING 5. LEASE DESIGNATION AND SERIAL NUMBER: ML 22265 DIV. OF OIL, GAS & MINING 6. IF INDIAN, ALLOTTEE OR TRIBE NAME WELL COMPLETION OR RECOMPLETION REPORT AND LOG 1a. TYPE OF WELL: OIL GAS WELL 7. UNIT or CA AGREEMENT NAME DRY OTHER b. TYPE OF WORK: 8. WELL NAME and NUMBER: NEW V DIFF. PESVR RE-ENTRY MORGAN STATE 921-36G4BS OTHER 2. NAME OF OPERATOR: 9 API NUMBER KERR MCGEE OIL & GAS ONSHORE, L.P. 4304752246 3. ADDRESS OF OPERATOR: PHONE NUMBER: 10 FIELD AND POOL, OR WILDCAT P.O.BOX 173779 CITY DENVER STATE CO ZIP 80217 (720) 929-6000 NATURAL BUTTES 4. LOCATION OF WELL (FOOTAGES) 11. QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: AT SURFACE: NWSE 2104 FSL 1770 FEL S36, T9S, R21E NWSE 36 9S 21E S AT TOP PRODUCING INTERVAL REPORTED BELOW: SWNE 2275 FNL 1809 FEL S36, T9S, R21E 12. COUNTY 13. STATE AT TOTAL DEPTH: SWNE 2314 FNL 1793 FEL S36, T9S, R21E **UTAH** UINTAH

14. DATE SPUDDED: 15. DATE T.D. REACHED; 16. DATE COMPLETED: 17. ELEVATIONS (DF, RKB, RT, GL): ABANDONED 8/21/2012 READY TO PRODUCE 🗸 9/25/2012 1/29/2013 5079 RKB 19. PLUG BACK T.D.: MD 9.565 18. TOTAL DEPTH: MD 9.620 20. IF MULTIPLE COMPLETIONS, HOW MANY? DEPTH BRIDGE MD PLUG SET: TVD 9.496 TVD 9.441 TVD 23

22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)

CBL/GR/CCL/TEMP-BHV-SD/DSN/ACTR

WAS WELL CORED? ио 🚺 YES 🗸 (Submit analysis) WAS DST RUN? NO 🔽 YES (Submit report) DIRECTIONAL SURVEY? NO [YES 🗸 (Submit copy)

24. CASING AND LINER RECORD (Report all strings set in well)

HOLE SIZE	SIZE/GRADE	WEIGHT (#/ft.)	TOP (MD)	BOTTOM (MD)	STAGE CEMENTER DEPTH	CEMENT TYPE & NO. OF SACKS	SLURRY VOLUME (BBL)	CEMENT TOP **	AMOUNT PULLED
20"	14" STL	36.7#	0	40		28			
11"	8 5/8" IJ-55	28#	0	2,714		900		0	
7 7/8"	4 1/2" I-80	11.6#	0	9,611		1,684		562	

25. TUBING RECORD

DEPTH SE	T (MD)	PACKER SET (MD)	SIZE	DEPTH SET (MD	D) PACKER SET (MD)	SIZE	DEP1	TH SET (MD)	PACKER SET (MD)
8,87	70								<u> </u>
ERVALS					27. PERFORATION RECO	RD			*
AME	TOP (MD) BOTTOM (M	MD) TOP (TVD)	BOTTOM (TVD)	INTERVAL (Top/Bot - MD) SIZE	NO. HOLES	PERFO	RATION STATUS
	6,3	22 7,405	5		6,322 7,40	0.36	72	Open 🗸	Squeezed
DE	7,6	10 9,44:	3		7,610 9,44	43 0.36	129	Open 🗸	Squeezed
								Open	Squeezed
								Open	Squeezed
	8,87	AME TOP (F	8,870 RVALS AME TOP (MD) BOTTOM (iii) 6,322 7,405	8,870 SPANE TOP (MD) BOTTOM (MD) TOP (TVD) 6,322 7,405	8,870 BOTTOM (MD) TOP (TVD) BOTTOM (TVD) 6,322 7,405	8,870 27. PERFORATION RECOIL BOTTOM (MD) TOP (TVD) BOTTOM (TVD) INTERVAL (Top/Bot - MD 6,322 7,405 6,322 7,405 7,610 9,443 7,610 9,443	8,870	Revals	8,870

28. ACID, FRACTURE, TREATMENT, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL	AMOUNT AND TYPE OF MATERIAL							
6322-9443	PUMP 10,627 BBLS SLICK H2O & 250,258 LBS 30/50 OTTAWA SAND							
	9 STAGES							

1 1	ELECTRICAL/MECHANICAL LOGS

GEOLOGIC REPORT	DST REPORT	V	DIRECTIONAL SURVEY
CORE ANALYSIS	OTHER:		

30.	WELL	STATUS:
1		

PROD

GEOLOGIC REPORT	Ш	DST REPORT	√	DIRECTIONAL SURVE
CORE ANALYSIS		OTHER:		

29 ENCLOSED ATTACHMENTS:

31. INITIAL PRODUCTION

INTERVAL A (As shown in item #26)

1/30/2013 S. CSG. PRESS. 3 2,897	API GRAVITY	BTU – GAS	24	RATES: →	0	2,678	1 0	FLOWING
	API GRAVITY	BTU GAS						1 , , , , , ,
		ſ	BTU – GAS GAS/OIL RATIO		OIL – BBL:	GAS - MCF: 2,678	WATER - BBL:	INTERVAL STATUS: PROD
	•	INT	ERVAL B (As sho	wn in item #26)	L		<u> </u>	1
TEST DATE:		HOURS TESTEI	HOURS TESTED: 1		OIL - BBL:	GAS - MCF:	WATER – BBL:	PROD. METHOD:
S. CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS:
		INT	ERVAL C (As sho	wn in item #26)				<u></u>
TEST DATE:		HOURS TESTE			OIL BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
S. CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
		INT	ERVAL D (As sho	wn in item #26)				- -
TEST DATE:		HOURS TESTER	D;	TEST PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER - BBL:	PROD. METHOD:
S. CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:
s	TEST DATE: SS. CSG. PRESS. TEST DATE: SS. CSG. PRESS.	TEST DATE: SS. CSG, PRESS. API GRAVITY TEST DATE:	INT TEST DATE: HOURS TESTER SS. CSG. PRESS. API GRAVITY BTU – GAS INT TEST DATE: HOURS TESTER TEST DATE: BTU – GAS SS. CSG. PRESS. API GRAVITY BTU – GAS	INTERVAL C (As shown that the content of the conten	INTERVAL C (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → INTERVAL D (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: →	SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → INTERVAL C (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → INTERVAL D (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: →	SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → GAS – MCF: INTERVAL C (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → GAS – MCF: INTERVAL D (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → GAS – MCF: INTERVAL D (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → GAS – MCF: RATES: → GAS – MCF: RATES: → GAS – M	SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → OIL – BBL: GAS – MCF: WATER – BBL: INTERVAL C (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → OIL – BBL: GAS – MCF: WATER – BBL: SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → OIL – BBL: GAS – MCF: WATER – BBL: INTERVAL D (As shown in item #26) TEST DATE: HOURS TESTED: TEST PRODUCTION RATES: → OIL – BBL: GAS – MCF: WATER – BBL: SS. CSG. PRESS. API GRAVITY BTU – GAS GAS/OIL RATIO 24 HR PRODUCTION RATES: → OIL – BBL: GAS – MCF: WATER – BBL:

33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
				GREEN RIVER BIRD'S NEST MAHOGANY WASATCH MESAVERDE	1,457 1,764 2,183 4,790 7,452

35. ADDITIONAL REMARKS (Include plugging procedure)

The first 210' of the surface hole was drilled with a 12 ¼" bit. The remainder of surface hole was drilled with an 11" bit. DQX csg was run from surface to 5083'; LTC csg was run from 5083' to 9611'. Attached is the chronological well history, perforation report & final survey.

36.	I hereby certify that the foregoing and attached information is o	complete and correct as determined fror	n all available records

NAME (PLEASE PRINT) LAURA ABRAMS

TITLE REGULATORY ANALYST

2/28/2013

SIGNATURE

This report must be submitted within 30 days of

- · completing or plugging a new well
- drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

^{*} ITEM 20: Show the number of completions if production is measured separately from two or more formations.

^{**} ITEM 24: Cement Top -- Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Operation Summary Report

Well: MORGAN	STATE 9	921-36G4BS	BLUE					Spud Date: 9/5/20	12		
Project: UTAH-U	HATNIL			Site: MOF	RGAN ST	ATE 921	-36J PAD		Rig Name No: PROPETRO 11/11, H&P 298/298		
Event: DRILLING	Start Date: 8/16/2012					End Date: 9/27/2012					
Active Datum: R Level)	KB @5,0	79.00usft (ab	oove Mean S	ea	UWI: N	N /SE/0/9	/S/21/E/36	/0/0/26/PM/S/2104			
Date	A	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
9/4/2012		- 21:30	2.50	MIRU	01	В	Р	:	M.S. 921-36G4BS (WELL 2 OF 4) INSTALL DIVERTOR HEAD AND BLUEY LINE. RIG UP NOV. SPOT IN RIG. SPOT IN CATWALK AND PIPE RACKS. RIG UP PUMP. PRIME PUMP. INSPECT RIG. SAFETY MEETING		
	21:30	- 0:00	2.50	DRLSUR	21	D	Z		WAITING ON DRILL COLLARS AND SUBS FROM PRO PETRO(AFTER INSPECTION)		
9/5/2012	0:00	- 0:30	0.50	DRLSUR	06	Α	Р		PICK UP #1 BHA (AFTER INSPECTION)		
	0;30	÷ 1:30	1.00	DRLSUR	02	В	Р	,	DRL F/44' - T/210' (166' @ 166' ROP) W.O.B. 5-15K RPM 45 POWERHEAD / 83 MUD MOTOR UP/DWN/ROT 22/20/20 2K DRAG PSI ON/OFF 620/420		
	1:30	- 3:30	2.00	DRLSUR	06	A	P		M.W. 8.5# VIS 27 TORQUE ON/OFF 3000/1000 NOV-ONLINE		
	3:30							1	TOOH WITH #1 BHA / TIH WITH #2 BHA AFTER INSPECTION)		
		- 12:00	8.50	DRLSUR	02	D	P	: 	DRL F/210' - T/1330' (1120' @ 131.8' ROP) W.O.B. = 18/20K RPM = 45 POWERHEAD / 83 MUD MOTOR UP/DWN/ROT = 70/55/62 8K DRAG PSI ON/OFF = 1330/1220 M.W. 8.5# VIS 27 TORQUE ON/OFF = 3000/1650 NOV-ONLINE 19' HIGH 10' RIGHT OF LINE SLID 231' / 18.29%		
		- 16:00 - 17:30	4.00 1.50	DRLSUR	02	. D	P	 	DRL F/1330' - T/1660' (330' @ 82.5' ROP) W.O.B. = 18/20K RPM = 45 POWERHEAD / 83 MUD MOTOR UP/DWN/ROT = 72/57/62 10K DRAG PSI ON/OFF = 1350/1260 M.W. 8.5# VIS 27 TORQUE ON/OFF = NOV-ONLINE 10' HIGH 16' RIGHT OF LINE SLID 394' / 23.62% DRL F/1660'- 1780' (120' @ 80' ROP)		
		- 0:00	6.50	DRLSUR	08	A	Z				
9/6/2012		- 2:30	ž.50	DRLSUR	06	A	z		***11 SPOOL FAILURE (HYDRAULICS), TRIP OUT OF HOLE LAYING DOWN. RIG DOWN, CHANGE OUT RIGS. RIG UP AND TRIP IN HOLE TRIP BACK IN HOLE, AFTER CHANGING OUT RIGS,		

Operation Summary Report

Well: MORGA		921-36G4BS	BLUE					Spud Date: 9/5/2012
Project: UTAH-	-UINTAH			Site: MOI	RGAN ST	ATE 921	-36J PAD	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLIN	NG			Start Date	e: 8/16/20	12		End Date: 9/27/2012
Active Datum: Level)	RKB @5,0	079.00usft (a	bove Mean S	iea	UWI: NV	V /SE/0/9	/S/21/E/36/0	0/0/26/PM/S/2104/E/0/1770/0/0
Date	- SI	Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	2:30	- 4:00	1.50	DRLSUR	02	D	P	DRL F/1780' - T/1930' (150' @ 100' ROP) W.O.B. =
								18/20K RPM = 45 POWERHEAD / 83 MUD MOTOR
								UP/DWN/ROT = 71/51/61 10K DRAG
								PSI ON/OFF = 1380/1180
								M.W. 8.5# VIS 27
								491 GPM PUMP RATE / NO AIR
								TORQUE ON/OFF = 3000/1200 NOV-ONLINE
1.00								2' HIGH 8' RIGHT OF LINE
								SLID 464' / 24.5%
	4:00					_		HÖLE COND. = LOST CIRCULATION @ 1930'
	4:00	- 16:30	12.50	DRLSUR	02	D	Р	DRL F/1930' - T/2722' (792' @ 63.4' ROP)
								W.O.B. = 18/20K RPM = 45 POWERHEAD / 83 MUD MOTOR
								UP/DWN/ROT = 91/61/76 15K DRAG
								PSI ON/OFF = 1450/1250
								M.W. 8.5# VIS 27
								491 GPM PUMP RATE / 2420 CFM AIR RATE
								TORQUE ON/OFF = 3000/1500 NOV-ONLINE
								17' BELOW 1' LEFT OF TARGET
								SLID 883' / 33%
	فممد							HOLE COND. = LOST CIRCULATION
	16:30	- 18:30	2.00	DRLSUR	05	C.	P	CIRCULATE FOR CASING
		- 22:30	4.00	DRLSUR	06	A	Р	LDDS,BHA & DIRECTIONAL TOOLS (SPOT MUD @ 1700'AND AT COLLARS
	22:30	- 23:30	1,00	DRLSUR	12	Α	P	MOVE PIPE RACKS AND CATWALK, PULL DIVERTER HEAD. RIG UP TO RUN CSG. MOVE CSG
								INTO POSITION TO P/U. LOAD TRUCKS WITH DRILL
	23:30	- 0:00	0.50	DRLSUR	12	С	Р	PIPE FOR INSPECTION.
9/7/2012	0:00							TIH 61 JOINTS 8 5/8", 28#, J55 CASING SHOE IS AT 2687.5' BAFFLE IS AT 2643.2'
9111201Z	5.00	- 1:30	1.50	DRLSUR	12	С	P	TIH 61 JOINTS 8 5/8", 28#, J55 CASING SHOË IS AT 2687.5' BAFFLE IS AT 2643.2'
	1:30	- 2:00	0.50	DRLSUR	12	В	Р	HOLD SAFETY MEETING PUMP ON CASING RUN
								200' OF 1". RIG DOWN RIG MOVE OFF WELL, RIG
	2:00	- 4:55		000015	خو	-	5	UP CEMENT TRUCKS, AND CEMENT HEAD.
	2.00	- 4:00	2.00	CSGSUR	12	E	P	RIG UP PRO PETRO PUMP TRUCK, LOAD PLUG
								,TEST LINES TO 2000 PSI. PUMP 155 BBLS WATER FOLLOWED BY 20 BBLS GEL WATER FLUSH
								FÖLLOWED BY TAIL = 300sx CLASS G CMT @ 15.8
								WT & 1.15 YIELD, DROP PLUG & DISPLACE W/
								163.3 BBLS WATER. PLUG DOWN @ 02:43
								09/07/2012 BUMP PLUG @ 650 PSI - FINAL LIFT = 400 PSI. FLOAT DIDN'T HOLD, SHUT IN UNDER
								PRESSURE. NO RETURNS THROUGH OUT JOB,
								PUMP 150 SX 15.8# CMT W/4% CALCIUM DOWN 1".
	4:00			000000		_		NO CEMENT TO SURFACE.
	4:00	- 5:30	1.50	CSGSUR	12	E	Р	WOC, PUMP TOP OUT #2 W/ 150SX CLASS G CMT
								@ 15.8 WT & 1.15 YIELD + 4% CACL / NO CMT TO SURFACE
	5:30	- 7:00	1.50	CSGSUR	12	Е	Р	WOC, PUMP TOP OUT #3 W/ 150SX CLASS G CMT
								@ 15.8 WT & 1.15 YIELD + 4% CACL / NO CMT TO
								SURFACE

Operation Summary Report

Well: MORGAN	STATE 9	21-36G4BS	BLUE					Spud Date: 9/5/20	12
Project: UTAH-L	JINTAH			Site: MOI	RGAN ST	ATE 921	-36J PAD		Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	G			Start Dat	e: 8/16/20	112			End Date: 9/27/2012
Active Datum: R Level)	KB @5,0	79.00usft (at	oove Mean Se	ea .	UWI: N\	<i>N</i> /SE/0/9	/S/21/E/36/	/0/0/26/PM/S/2104/	E/0/1770/0/0
Date	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:00	9:00	2.00	CSGSUR	12	Ē	P	9	VOC, PUMP TOP OUT #4 W/ 150SX CLASS G CMT ② 15.8 WT & 1.15 YIELD + 4% CACL / NO CMT TO SURFACE. RELEASED RIG @ 09:00, CALLED FOR READY MIX TOP OFF.
9/21/2012	12:00	- 13:30	1.50	MIRU3	01	С	₽	F	PREPARE & SKID RIG
	13:30	- 14:30	1.00	MIRU3	01	В	P	Ë	RURT
		- 15:00	0.50	MIRU3	14	Α	Р	N	IIPPLE UP BOP'S & EQUIPMENT
		- 19:00	4.00	PRPSPD	15	A	P	2	TEST BOP'S & EQUIPMENT AS PER PROGRAM 150/5000 PSI & 250/2500 ON ANNULAR / 1500 PSI ON CSG FOR 30 MINS.
	19:00	- 19:30	0.50	PRPSPD	14	В	P	11	NSTALL WEAR BUSHING
		- 22:00	2.50	PRPSPD	15	A	P	P	NSTALL SMITH BEARING ASSY TEST MI SWACO RESSURE CONTROL EQUIPMENT SEVERAL RETEST DUE TO LEAKS
	22:00	- 22:30	0.50	PRPSPD	07	Α	Р	S	SERVICE RIG
		- 0:00	1.50	PRPSPD	06	Α	P	V	PU & MU DIRECTIOANL BHA # 1 WITH VEATHERFORD,ORIENTATE ,SCRIBE & SURFACE TEST DIRECTIONAL TOOLS, TIH
9/22/2012	0:00	- 1:00	1.00	PRPSPD	06	Α	Р	Т	TH TO 2,550'
	1:00	- 1:30	0.50	PRPSPD	07	В	Р	L	EVEL DERRICK & INSTALL ROTATING RUBBER
	1:30	- 2:00	0.50	PRPSPD	23		Р	P	PRE SPUD INSPECTION
	2:00	- 3:00	1.00	DRLPRC	02	F	P		ORILL CEMENT & SHOE TRACK FROM 2,583' TO 1,709' CLEAN OUT RAT HOLE TO 2,744'
	3:00	- 12:30	9.50	DRLPRC	02	В	Р	W V T M F T S S G M S S N S	PRILL /SLIDE / SURVEY/ F/ 2,744' TO 3,939' = 1,195' 2125.78 FPH WOB 22-24000 FOP DRIVE RPM 40-75 MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 1,950/1,700 FORQUE ON/OFF BTM 7,000/ 6,000 PICK UP WT 119,000 BLACK OFF WT 98,000 ROT WT 108,000 BLIDE 243' IN 190 MIN 20.35 % OF FOOTAGE DRILLED, 33.33 %OF HRS DRILLED MUD WT 8.5 VIS 26, PUMPING 5-10 BBL SWEEPS EVERY STAND WITH 19% LCM MOV-D WATER BWACO OFF LINE
		- 13:00	0.50	DRLPRC	05	Α	P		CIRC, PUMP SLUG
	13:00	- 14:30	1.50	DRLPRC	06	Α	Р	Т.	OOH FROM 3,939' TO 1,009' TO HWT DP
	14:30	- 16:30	2.00	DRLPRC	06	Α	P		MAKE UP GHOST REAMER TIH FROM 1009' TO ,939' - NO PROBLEMS - 2' OF FILL

Vell: MORGAN	STATE 9	21-36G4BS I	BLUE				<u>ar saltu fa</u>	Spud Date: 9/5	/2012
Project: UTAH-				Site: MOF	RGAN ST	ATE 921-	36J PAD		Rig Name No: PROPETRO 11/11, H&P 298/298
vent: DRILLIN	G			Start Date	e: 8/16/20	012			End Date: 9/27/2012
ctive Datum: F	RKB @5.0	79.00usft (ab	ove Mean S				S/21/E/36/	D/0/26/PM/S/21	04/E/0/1770/0/0
evel)		`							
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	.P/U	MD From (usft)	Operation
	16:30	- 17:00	0.50	DRLPRC	02	В	P		DRILL /SLIDE / SURVEY/ F/ 3,939' TO 4,041' = 102'
									@204 FPH
									WOB 22-24000
									TOP DRIVE RPM 40-75
									MUD MOTOR RPM 115
									PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 1,950/1,700
									TORQUE ON/OFF BTM 7,000/ 6,000
			,						PIČK UP WT 119,000
									SLACK OFF WT 98,000
									ROT WT 108,000
									SLIDE 22' IN 10 MIN 21.56% OF FOOTAGE DRILLED,
									33.33%OF HRS DRILLED
									MUD WT 8.5 VIS 26,
									PUMPING 5-10 BBL SWEEPS EVERY STAND WITH
									5% LCM
									NOV-D WATER
	17:00	- 17:30	0.50	DRLPRC	07	Α	Р		SWACO OFF LINE SERVICE RIG @ 4,041'
		- 0:00	6.50	DRLPRC	02	В	, P		<u> </u>
	.,,,	0,00	0.50	DIVELLIC	UZ	ь	r		DRILL /SLIDE / SURVEY/ F/ 4,041' TO 4,865' = 824'
									@ 126.76 FPH WOB 22-26000
									TOP DRIVE RPM 55-75
									MUD MOTOR RPM 115
									PUMPS 124 SPM= 558 GPM
									PUMP PRESSURE ON/OFF BTM 2,275/1,950
									TORQUE ON/OFF BTM 11,000/ 8,000
									PICK UP WT 138,000
									SLACK OFF WT 108,000
									ROT WT 122,000
									SLIDE 151' IN 140 MIN 18.32% OF FOOTAGE
									DRILLED, 35.89 %OF HRS DRILLED
									MUD WT 8.5 VIS 26, PUMPING 5-10 BBL SWEEPS EVERY STAND WITH
									5% LCM
									NOV-D WATER
									SWACO OFF LINE
									NO FLUID LOSS
9/23/2012	0:00	- 6:00	6.00	DRLPRC	02	В	Р		DRILL / SURVEY/ F/ 4,865' TO 5,870' = 1,005' @
									167.5 FPH
									WOB 23-26000
									TOP DRIVE RPM 55-75
									MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM
									PUMP PRESSURE ON/OFF BTM 2,300/2050
									TORQUE ON/OFF BTM 13,000/ 10,000
									PICK UP WT 175,000
									SLACK OFF WT 118,000
									ROT WT 135,000
									MUD WT 8.5 VIS 26,
									PUMPING 5-10 BBL SWEEPS EVERY STAND WITH
									5% LCM
									NOV-D WATER
									SWACO OFF LINE

Well: MORGAN:	STATE 921-36G4BS	BLUE					Spud Date: 9/5/	/2012			
Project: UTAH-U	INTAH		Site: MOF	RGAN ST	ATE 921	-36J PAD		Rig Name No: PROPETRO 11/11, H&P 298/298			
Event: DRILLING			Start Date	e: 8/16/20	112		****	End Date: 9/27/2012			
Active Datum: RI	KB @5,079.00usft (ab	ove Mean Se	-1			/S/21/E/36	0/0/26/PM/S/210				
Level)											
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
	6:00 - 14:30 14:30 - 15:00 15:00 - 0:00	0.50 9.00	DRLPRV DRLPRV DRLPRV	02 07 02	B A B	P P	(USI)	DRILL /SLIDE / SURVEY/ F/ 5,870' TO 6,870' = 1,000' @ 117.64 FPH WOB 23-26000 TOP DRIVE RPM 55-75 MUD MOTOR RPM 115 PUMPS 124 SPM= 558 GPM PUMP PRESSURE ON/OFF BTM 2,385/2,130 TORQUE ON/OFF BTM 15,000/ 13,000 PICK UP WT 203,000 SLACK OFF WT 121,000 ROT WT 153,000 SLIDE 30' IN 50 MIN 3.0% OF FOOTAGE DRILLED, 9.8%OF HRS DRILLED MUD WT 8.9 VIS 28, PUMPING 5-10 BBL SWEEPS EVERY STAND WITH 5% LCM NOV-D WATER SWACO OFF LINE 160 BBL FLUID LOSS SERVICE RIG @ 6,870' DRILL /SLIDE / SURVEY/ F/ 6,870' TO 7,500' = 630' @ 70 FPH WOB 18-23 TOP DRIVE RPM 55-75 MUD MOTOR RPM 71-95 PUMPS 70-100 SPM= 340-450 GPM PUMP PRESSURE ON/OFF BTM 1625/1340 TORQUE ON/OFF BTM 14,000/ 11,000 PICK UP WT 208,000 SLACK OFF WT 140,000 ROT WT 165,000 SLIDE 47' IN 150 MIN 7.46% OF FOOTAGE DRILLED, 27.77%OF HRS DRILLED MUD WT 8.9 VIS 33, PUMPING 5-10 BBL SWEEPS EVERY STAND WITH 5% LCM NOV-D WATER & CONVENTIONAL SWACO OFF LINE 860 BBL FLUID LOSS			

Well: MORGAN	STATE 92	1-36G4BS	BLUE					Spud Date: 9/5	5/2012
Project: UTAH-I	JINTAH			Site: MOI	RGAN ST	ATE 921	-36J PA	<u> </u>	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLIN	G	_		Start Date	e: 8/16/20)12			End Date: 9/27/2012
Active Datum: F Level)	RKB @5,079	9.00usft (ab	ove Mean Se	ea	UWI: N	W/SE/0/9	/S/21/E/	36/0/0/26/PM/S/21	04/E/0/1770/0/0
Date	Star	me t-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/24/2012	0:00	- 14:30	14.50	DRLPRV	02	В	P		DRILL /SLIDE / SURVEY/ F/ 7,500' TO 8,576' = 1,076' @ 74.20 FPH WOB 20-26 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2385/1965 TORQUE ON/OFF BTM 17,000/ 16,000 PICK UP WT 226,000 SLACK OFF WT 150,000 ROT WT 180,000 SLIDE 51' IN 145 MIN 4.7% OF FOOTAGE DRILLED, 16.6%OF HRS DRILLED MUD WT 8.9 VIS 33, PUMPING 5-15 BBL SWEEPS EVERY STAND WITH 5% LCM NOV- CONVENTIONAL SWACO ON LINE 110-140 PSI
	14:30	- 15:00	0.50	DRLPRV	07	Á	P		170 BBL FLUID LOSS SERVICE RIG @ 8,576'
	15:00	- 0:00	9.00	DRLPRV	02	В	P		DRILL /SLIDE / SURVEY/ F/ 8,576' TO 9,135' = 559' @ 62.11 FPH WOB 20-26 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2385/1965 TORQUE ON/OFF BTM 17,000/ 16,000 PICK UP WT 232,000 SLACK OFF WT 170,000 ROT WT 193,000 SLIDE 42' IN 130 MIN 7.5% OF FOOTAGE DRILLED, 24 % OF HRS DRILLED MUD WT 10.8 VIS 38, PUMPING 5-15 BBL SWEEPS EVERY STAND WITH 5% LCM NOV- CONVENTIONAL SWACO ON LINE 110-140 PSI 10 - 20' FLARE NO MUD LOSS
9/25/2012	0:00	- 9:00	9.00	DRLPRL	02	В	P		DRILL / SURVEY/ F/ 9,135 TD' TO 9,620' =485' @ 53.88FPH WOB 23-28 TOP DRIVE RPM 55-75 MUD MOTOR RPM 104 PUMPS 110 SPM= 495 GPM PUMP PRESSURE ON/OFF BTM 2995/2760 TORQUE ON/OFF BTM 17,000/ 16,000 PICK UP WT 235,000 SLACK OFF WT 170,000 ROT WT 193,000 MUD WT 11.4 VIS 38, WITH 5% LCM NOV- CONVENTIONAL 80 BBL MUD LOSS

Operation Summary Report

Well: MORGAN S	STATE 9	921-36G4BS	BLUE	· · · · · · · · · · · · · · · · · · ·				Spud Date: 9/5	5/2012
Project: UTAH-U	INTAH		••	Site: MOI	RGAN ST	ATE 921-	36J PAD	<u>-</u>	Rig Name No: PROPETRO 11/11, H&P 298/298
Event: DRILLING	3		****	Start Date	e: 8/16/20	112			End Date: 9/27/2012
Active Datum: RI Level)	⟨B @5,0	79.00usft (al	oove Mean S	ea	UWI: N\	<i>N</i> /SE/0/9/	S/21/E/36	i/0/0/26/PM/S/21	04/E/0/1770/0/0
Date	St	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
		- 10:00 - 14:30	1.00 4.50	DRLPRL DRLPRL	05 06	A	P P		CIRCULATE & COND MUD @ 9,620' TD, 11.4 PPG MUD WT 40 VIS, SPOT 100 BBL 12.5PPG PILL W/ 15% LCM
									TOOH FROM 9,620' TO 2,655', FLOW CHECK - WELL STATIC (TIGHT HOLE @ 9,071' , 5,155',4,282' & 4,143') 15 TO 40 K OVER
		- 16:00	1.50	DRLPRL	09	Α	Р		SLIP & CUT 96' DRILL LINE
	16:00	- 16:30	0.50	DRLPRL	07	Α	Р		SERVICE RIG @ 2,655'
		- 20:30	4.00	DRLPRL	06	Ē	Р		TIH FROM 2,655' TO 9,440' , WASH LAST 2 STDS TO BTM , 12' FILL
		- 22:30	2.00	DRLPRL	05	Α	Р		CIRC & CONDITION MUD @ 9,620' TD RAISE MUD WT TO 11.8 PPG
	22:30	- 0:00	1.50	DRLPRL	06	E	Р		20 STAND SHORT TRIP W/ NO PROBLEMS
9/26/2012	0:00	- 0:30	0.50	DRLPRL	06	E	P		CONTINUE 20 STAND WIPER TRIP WITH NO PROBLEMS
	0:30	- 2:30	2.00	DRLPRL	05	С	P		CIRCULATE & CONDITION HOLE @ 9,620' MUD WT 11.9 PPG VIS 41
	2:30	- 9:00	6.50	EVALPR	06	Α	Р		TOOH FROM 9,620' / FLOW CHECK @ CSG SHOE /PULL BHA /STAND BACK DIRECTIONAL TOOLS / BREAK BIT LAY DOWN MUD MOTOR
	9:00	- 13:00	4.00	EVALPR	11	G	Р		JSA W/ HALLIBURTÓN LOGGERS,R/U AND RUN TRIPLE COMBO BRIDGED OUT @ 4,964' / ',LOG OUT TO SURFACE / RD SAME
	13:00	- 13:30	0.50	CSGPRO	14	В	Р		REMOVE BEARING ASSEMBLY, PULL WEAR BUSHING, INSTALL CASING NIPPLE,
	13:30	- 14:00	0.50	CSGPRO	12	Α	P		CHANGE OUT DRILLING BAILS TO CASING BAILS
	14:00	- 14:30	0.50	CSGPRO	07	Α	Р		DAILY RIG SERVICE
		- 19:30	5.00	CSGPRÓ	12	Ċ	Р		CTJSA RIG UP FRANKS CASING EQUIP, MAKE UP FLOAT EQUIP RIH & TEST, RUN CASING TO 4,880
	19:30	- 20:30	1.00	CSGPRO	08	Α	Z		ADJUSTMENTS MADE TO PIPE WRANGLER HYDRAULIC CATWALK SKATE BELTS OUT OF TIME.RE-ADJUST SKATE BELTS
21771245		- 0:00	3.50	CSGPRO	12	С	P		RUN 104 JTS I-80 11.6# LTC 4.5 CASING +1 CROSSOVER LTC/ DQX 116 JTS I-80 11.6# DQX 4.5 CASING+ RELATED TOOLS / BREAKING CIRCULATION @ SELECTED INTERVALS / LANDING CASING MANDREL IN BOWL W/98,000, @ 9,611 FOR CIRC & CEMENTING / SHOE @9,611 / FC @ 9,564 MV MKR @ 7,489 X/0 @ 5,083,
9/27/2012	0:00	- 1:30	1.50	CSGPRO	05	D	Р		CIRC CASING RIG DOWN FRANKS CASING EQUIPMENT, SAFETY MEETING WITH BAKER HUGHES CEMENTERS

2/15/2013

10:36:10AM

				KIES RI Summa	egion ary Report			
Well: MORGAN STATE 921-36G4BS BLUE					Spud Date: 9/5	/2012		
Project: UTAH-UINTAH	Site: MO	RGAN ST	ATE 92	1-36J PAD		Rig Name No: PROPETRO 11/11, H&P 298/298		
Event: DRILLING	Start Dat	e: 8/16/20	012			End Date: 9/27/2012		
Active Datum: RKB @5,079.00usft (above Mean Level)	Sea	UWI: N	W/SE/0/9	9/S/21/E/36	6/0/0/26/PM/S/21	04/E/0/1770/0/0		
Date Time Duration Start-End (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
4:30 - 4:30 3.00 4:30 - 5:30 1.00 5:30 - 6:00 0.50 6:00 - 8:30 2.50	CSGPRO CSGPRO CSGPRO	12	E C	P		INSTALL BJ CMT HEAD, TEST PUMP & LINES TO 5,000 PSI, DROP BOTTOM PLUG PUMP 25 BBLS FW PUMP 579 SKS LEAD CEMENT @ 12.5 PPG,(204 BBLS) (PREM LITE II + .0.25 pps CELLO FLAKE + 5 pps KOL SEAL + .05 lb/sx STATIC FREE + 6% bwoc BENTONITE + .2% bwoc SODIUM META SILICATE + 0.2 % R-3 +0.4%bwoc FL-52 101#FRESH WATER / (10.44 gal/sx, 1.98 yield) + 1,105 SX TAIL @ 14.3 ppg(259 BBLS)+ (CLS G 50/50 POZ + 10% SALT + .005llbs/sx STATIC FREE + .2% R3 + .002 GPS FP-6L + 2% BENTONITE +0.5%EC-1+ 58.9% FW / (5.94 gal/sx, 1.32 yield) WASH PUMP & LINES DROP TOP PLUG & DISPLACE W/ 148.8 BBLS H2O + ADDITIVES / PLUG DOWN @03:51 HOURS / FLOATS HELD W/ 1.5 BBLS H2O RETURNED TO INVENTORY/ GOOD RETURNS THROUGHT OUT, 20 BBLS SPACER TO SURFACE / NO CEMENT / LIFT PRESSURE @ 2,789 PSI BUMP PRESSURE @3,400 / TOP OF TAIL CEMENT CALCULATED @ 4,260' R/D BJ FLUSH BOP STACK, PULL ROT RUBBER & LANDING JT,SET PACK OFF, LAY DOWN SETTING TOOL REMOVE CASING BAILS & ELEVATORS		
6:00 - 8:30 2.50	RDMO	14	A	P		NIPPLE DOWN BOPE, PREP TO SKID, RELEASE RIG @ 08:30 HRS 9/27/2012		

2/15/2013

10:36:10AM

1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	MORGAN STATE 921-36G4BS BLUE	Wellbore No.	OH
Well Name	MORGAN STATE 921-36G4BS	Wellbore Name	MORGAN STATE 921-36G4BS
Report No.	1	Report Date	1/4/2013
Project	UTAH-UINTAH	Site	MORGAN STATE 921-36J PAD
Rig Name/No.		Event	COMPLETION
Start Date	1/4/2013	End Date	1/29/2013
Spud Date	9/5/2012	Active Datum	RKB @5,079.00usft (above Mean Sea Level)
uwi	NW/SE/0/9/S/21/E/36/0/0/26/PM/S/2104/E/0/1770/0/0	·	

1.3 General

Contractor		Job Method	Supervisor	
Perforated Assem	_	Conveyed Method		

1.4 Initial Conditions

1.5 Summary

Fluid Type		Fluid Density	Gross interval	6,322.0 (usft)-9,443.0 (usft	Start Date/Time	12/31/2012 12:00AM
Surface Press		Estimate Res Press	No. of intervals	53	End Date/Time	12/31/2012 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	201	Net Perforation Interval	61.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.30 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL.				Final Press Date	

2 Intervals

2.1 Perforated Interval

Date Formation/	ccr@				13 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Misfires/	Diamete	Carr Type /Stage No	Carr	Phasing	Charge Desc/Charge	Charge	Reason	Misrun
Reservoir	(usft)	S (usft)	(usft)	(usft)	Density (shot/ft)	Add, Shot	r (in)		Size (in)	(එ	Manufacturer (Weight (gram)		
12/31/201 WASATCH/			6,322.0	6,323.0	4.00		0.360	EXP/	3.375	90.00		<u> </u>	0 PRODUCTIO	
2													N	
12:00AM					í		1							

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/31/201 2 12:00AM	WASATCH/		THE PROPERTY OF THE PROPERTY O	6,365.0	6,366.0	4.00		0.360	EXP	3.375	90.00		23.00	PRODUCTIO N	
12/31/201 2 12:00AM	WASATCH/	AND THE PROPERTY OF THE PROPER		6,411.0	6,412.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	WASATCH/	1		6,594.0	6,595.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12/31/201 2	WASATCH/	1		6,608.0	6,610.0	4.00		0.360	EXP/	3.375	90.00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	23.00	PRODUCTIO N	And Andrew 197 (Pr. 197)
12:00AM 12/31/201 2 12:00AM	WASATCH/		THE PARTY OF THE P	6,760.0	6,761.0	4.00		0.360	EXP/	3.375	90.00	ua data damininan di matematika (matematika basinina i mi	23.00	PRODUCTIO N	
Contract Con	WASATCH/			6,818.0	6,819.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	WASATCH/	***************************************		6,854.0	6,856.0	4.00	.,,	0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	WASATCH/	The state of the s		6,906.0	6,908.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	WASATCH/		24000	7,100.0	7,101.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
	WASATCH/		man control of the co	7,126.0	7,127.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
1 2/3 1/201 2	WASATCH/	At the state of th		7,151.0	7,152.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	A. B. A.
2	WASATCH/	The state of the s		7,213.0	7,214.0	4.00		0.360	EXP/	3.375	90.00			PRODUCTIO N	
2	WASATCH/			7,403.0	7,405.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	
12:00AM 12/31/201 2 12:00AM	MESAVERDE/			7,610.0	7,611.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	THE STATE OF THE S

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/31/201 2 12:00AM	MESAVERDE/			7,631.0	7,632.0	3.00		0.360	EXP/	3.375	120,00			PRODUCTIO N	
	MESAVERDE/			7,657.0	7,658.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			7,694.0	7,695.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12/31/201 2	MESAVERDE/			7,740.0	7,741.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2	MESAVERDE/			7,762.0	7,764.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2	MESAVERDE/			7,874.0	7,875.0	3.00		0.360	EXP/	3.375	120.00		23,00	PRODUCTIO N	
2	MESAVERDE/			7,976.0	7,977.0	3.00	MI 1 THE SECRET OF A 1	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 12/31/201 2 12:00AM	MESAVERDE/			8,096.0	8,097.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
	MESAVERDE/		THE PERSON NAMED IN COLUMN	8,114.0	8,115.0	3.00	PROPAGATA AND AND AND AND AND AND AND AND AND AN	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/		The state of the s	8,132.0	8,133.0	3.00	A AGE SERVICE STREET ST	0.360	EXP/	3.375	120.00			PRODUCTIO N	**************************************
12/31/201 2	MESAVERDE/			8,156.0	8,158.0	3.00	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0.360	EXP/	3.375	120.00			PRODUCTIO N	- 112
2	MESAVERDE/	79		8,329.0	8,330.0	3.00	Additional and the second seco	0.360	EXP/	3.375	120.00			PRODUCTIO N	
2	MESAVERDE/			8,424.0	8,425.0	3.00	, and the second	0.360	EXP/	3.375	120.00			PRODUCTIO N	
12:00AM 12/31/201 2 12:00AM	MESAVERDE/		O TOTAL DE LA CONTRACTOR DE LA CONTRACTO	8,452.0	8,453.0	3.00	90	0.360	EXP/	3.375	120.00		1	PRODUCTIO N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/31/201 2 12:00AM	MESAVERDE/			8,513.0	8,514.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12/31/201 2	MESAVERDE/		and the contraction of the contr	8,540.0	8,541.0	3.00	All Tribulance Base All Mallimba all 1997 The Base and Committee C	0.360	EXP/	3.375	120.00	A SANTA A AMBRET IN VIRGINITIES OF A SERVICE AS A SANTA AND A SANT	23.00	PRODUCTIO N	Hamman and an and an
2	MESAVERDE/		!	8,589.0	8,590.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
2	MESAVERDE/		en e	8,604.0	8,605.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/			8,654.0	8,655.0	3.00		0.360	EXP/	3.375	120.00	<u> </u>	23.00	PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/		· · · · · · · · · · · · · · · · · · ·	8,730.0	8,731.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/			8,765.0	8,766.0	3.00	: : : :	0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/			8,788.0	8,789.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	M174 1 100 101 M011010 11111010 11
12:00AM 12/31/201 2	MESAVERDE/		#### ####	8,819.0	8,820.0	3.00	:	0.360	EXP/	3.375	120.00			PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/			8,830.0	8,831.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/	- · · · · · · · · · · · · · · · · · · ·	The second secon	8,848.0	8,850.0	3.00	·	0.360	EXP/	3,375	120.00	- · · ·		PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/	,		8,916.0	8,917.0	3.00		0.360	EXP/	3.375	120.00		1	PRODUCTIO N	
12:00AM 12/31/201 2	MESAVERDE/			8,963.0	8,964.0	3.00		0.360	EXP/	3.375	120.00	1		PRODUCTIO N	
12:00AM 12/31/201	MESAVERDE/			8,980.0	8,981.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
2 12:00AM							10. 000000						ar management of the contract	N	

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc/Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
12/31/201 2 12:00AM	MESAVERDE/		Control of the Contro	9,018.0	9,019.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO N	CI - PRINCIPAL P
12/31/201 2 12:00AM	MESAVERDE/	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		9,036.0	9,037.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/		The state of the s	9,070.0	9,071.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/			9,132.0	9,133.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	***************************************
12/31/201 2 12:00AM	MESAVERDE/			9,201.0	9,202.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	**************************************
12/31/201 2 12:00AM	MESAVERDE/			9,281.0	9,282.0	3.00		0,360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
12/31/201 2 12:00AM	MESAVERDE/			9,299.0	9,300.0	3.00		0.360	EXP/	3,375	120.00		23.00	PRODUCTIO N	A
12/31/201 2 12:00AM	MESAVERDE/			9,309.0	9,310.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
	MESAVERDE/	5	Port of the second seco	9,422.0	9,424.0	3.00		0.360	EXP/	3.375	120.00			PRODUCTIO N	
	MESAVERDE/		Billion of the state of the sta	9,442.0	9,443.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	The state of the s

3 Plots

				U Oper a	S ROC			
Well: MORGAN	STATE 921-36G4B	S BLUE		31.1 PAYS 1			Spud Date: 9/5	/2012
Project: UTAH-U			Site: MOI	RGAN ST	ATE 92	1-36J PAD		Rig Name No: GWS 1/1
Event: COMPLE	TION		Start Date		13			End Date: 1/29/2013
	KB @5,079.00usft	(above Mean Se		1		9/S/21/E/36	5/0/0/26/PM/S/21	
Level)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
9/5/2012	-							
9/6/2012 1/4/2013	10:00 - 11:00	1.00	FRAC	33	С	Р		FILL SURFACE CSG. MIRU CAMERON QUICK TEST. 1ST PSI TEST T/ 7000 PSI. HELD FOR 15 MIN LOST 43 PSI. NO COMMUNICATION OR MIGRATION WITH
1/7/2013	7:00 - 18:00	11.00	FRAC	34		Р		SURFACE CSG BLEED OFF PSI. MOVE T/ NEXT WELL.SWIFN PERF 1ST STAGE AS PER DESIGN
1/9/2013	7:00 - 18:00	11.00	FRAC	36	В	P		BEGIN PERF AND FRAC.
								FRAC STG 1) WHP 2069 PSI, BRK 3150 PSI @ 5.1 BPM. ISIP 2382 PSI, FG .0.69, CALC PERFS OPEN @ 50.9 BPM @ 4858 PSI = 100% HOLES OPEN. 0 ISIP 2936 PSI, FG .0.75, NPI 554 PSI. 0 MP 6175 PSI, MR 51.4 BPM, AP 5095 PSI, AR 50.6 BPM, PUMPED 30/50 OWATTA SAND.
								PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=9163', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.
								FRAC STG 2) WHP 2001 PSI, BRK 2845 PSI @ 4.9 BPM. ISIP 2228 PSI, FG .0.69, CALC PERFS OPEN @ 55.7 BPM @ 5571 PSI = 100% HOLES OPEN. 0 ISIP 2844 PSI, FG .0.75, NPI 616 PSI. 0 MP 5856 PSI, MR 55.8 BPM, AP 5493 PSI, AR 54.8 BPM, PUMPED 30/50 OWATTA SAND.
:								PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8880', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.
								FRAC STG 3) WHP 2110 PSI, BRK 2751 PSI @ 4.7 BPM. ISIP 2234 PSI, FG .0.69, CALC PERFS OPEN @ 55.7 BPM @ 4819 PSI = 100% HOLES OPEN. 0 ISIP 2728 PSI, FG .0.75, NPI 494 PSI. 0 MP 5351 PSI, MR 56.1 BPM, AP 4911 PSI, AR 55.1 BPM, PUMPED 30/50 OWATTA SAND.
								PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8635', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW. SWIFN. DRAIN EQUIP.

			Opera	ition S	Summa	ry Report	
Well: MORGAN ST	ATE 921-36G4BS E	BLUE				Spud Date: 9/5/	2012
Project: UTAH-UIN	TAH	Site: MC	RGAN ST	ATE 921	-36J PAD		Rig Name No: GWS 1/1
Event: COMPLETION	ON	te: 1/4/20	13			End Date: 1/29/2013	
Active Datum: RKB Level)	@5,079.00usft (ab	UWI: N	04/E/0/1770/0/0				
Date	Time Start-End	Duration Phase (hr)	Code	Sub Code	P/U	MD From (usft)	Operation
1/10/2013	7:00 - 18:00	11.00 FRAC	36	В	Р		CONT PERF AND FRAC.
							FRAC STG 4) WHP 1685 PSI, BRK 2475 PSI @ 5.1 BPM. ISIP 1831 PSI, FG .0.65, CALC PERFS OPEN @
							54.2 BPM @ 4908 PSI = 100% HOLES OPEN, 0 ISIP 2660 PSI, FG .0.75, NPI 829 PSI, 0 MP 5258 PSI, MR
							54.3 BPM, AP 4950 PSI, AR 53.6 BPM, PUMPED

PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8188', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN

PROCEDURE, X OVER TO FRAC CREW.

30/50 OWATTA SAND.

FRAC STG 5) WHP 1330 PSI, BRK 3143 PSI @ 4.8 BPM. ISIP 1848 PSI, FG .0.67, CALC PERFS OPEN @ 52.1 BPM @ 4871 PSI = 100% HOLES OPEN. 0 ISIP 2510 PSI, FG .0.75, NPI 662 PSI. 0 MP 5580 PSI, MR 52.9 BPM, AP 4842 PSI, AR 51.8 BPM, PUMPED 30/50 OWATTA SAND.

PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7794', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.

FRAC STG 6) WHP 766 PSI, BRK 2758 PSI @ 5.0 BPM. ISIP 1415 PSI, FG .0.62, CALC PERFS OPEN @ 52.2 BPM @ 3669 PSI = 100% HOLES OPEN. 0 ISIP 1946 PSI, FG .0.69, NPI 531 PSI. 0 MP 4781 PSI, MR 53 BPM, AP 3827 PSI, AR 52.1 BPM, PUMPED 30/50 OWATTA SAND.

PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7435', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.

FRAC STG 7) WHP 200 PSI, BRK 1872 PSI @ 5.1 BPM. ISIP 1207 PSI, FG .0.61, CALC PERFS OPEN @ 50.6 BPM @ 3888 PSI = 88% HOLES OPEN. 0 ISIP 2234 PSI, FG .0.75, NPI 1027 PSI. 0 MP 4508 PSI, MR 51.4 BPM, AP 3944 PSI, AR 50.2 BPM, PUMPED 30/50 OWATTA SAND.

PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6938', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.

SWIFN. DRAIN EQUIP.

Operation Summary Report

Vell: MORGAN S	STATE 92	1-36G4BS	BLUE					Spud Date: 9/5	5/2012
Project: UTAH-U	INTAH			Site: MOI	RGAN ST	ATE 921	-36J PAD	******	Rig Name No: GWS 1/1
vent: COMPLE	TION			Start Date	e: 1/4/201	13		****	End Date: 1/29/2013
Active Datum: Rh	KB @5,079	9.00usft (a	bove Mean Se	ea	UWI: N	W/SE/0/9	/S/21/E/36	6/0/0 /26/PM /S/21	104/E/0/1770/0/0
Date	1 .	ime rt-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
1/11/2013	7:00	- 18:00	11.00	FRAC	36	В	Р		CONT PERF AND FRAC.
									FRAC STG 8) WHP 1073 PSI, BRK 2507 PSI @ 4.7 BPM. ISIP 1766 PSI, FG .0.7, CALC PERFS OPEN @ 50.7 BPM @ 4605 PSI = 83% HOLES OPEN. 0 ISIP 1976 PSI, FG .0.73, NPI 210 PSI. 0 MP 5039 PSI, MR 53.5 BPM, AP 4222 PSI, AR 51.8 BPM, PUMPED 30/50 OWATTA SAND.
									PERF STG #9] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6640', PERF USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW.
									FRAC STG 9) WHP 402 PSI, BRK 1455 PSI @ 4.7 BPM. ISIP 773 PSI, FG .0.56, CALC PERFS OPEN @ 52.3 BPM @ 4722 PSI = 100% HOLES OPEN. 0 ISIP 1409 PSI, FG .0.66, NPI 636 PSI. 0 MP 4227 PSI, MR 51.1 BPM, AP 3193 PSI, AR 50.3 BPM, PUMPED 30/50 OWATTA SAND.
									RIH W/ WIRELINE. SET HAL 8K CBP @6272' (KILL PLUG). SWI. FRAC COMPLETE. READY FOR D/O.
1/28/2013	7:00	- 7:15	0.25	DRLÖUT	48		P		TOTAL SAND PUMPED =250,258 # TOTAL FLUID PUMPED = 10,627 BBLS HSM, SLIPS, TRIPS & FALLS, PU TBG
		- 11:30	4.25	DRLOUT	46	F	P		WAIT ON GRADER TO PULL TBG TRAILER UP HILL, SOMEBODY STOLE THERE TIRE CHAINS OFF THE GRADERS OVER THE WEEKEND.
	11:30	- 17:00	5.50	DRLOUT	31	I	P		3 OF 4, (TEMP 28 DEGS) MIRU 1/25/2013, SPOT TBG TRAILER INSTAL HAND RAILS, PU 3 7/8" BIT, POBS, 1.875" XN S/N, TALLY & PU TBG, RU P/S, WINTERIZE EQUIP, SWI, SDFN.
1/29/2013	7:00	- 7:15	0.25	DRLOUT	48		Р		HSM SLIPS, TRIPS & FALLS, D/O PLUGS, LANDING TBG

2/15/2013 10:41:53AM

Vell: MORGAN	STATE 921-36G4BS I	BLUE					Spud Date: 9/5	5/2012
Project: UTAH-L	JINTAH		Site: MOF	RGAN ST	ATE 921	-36J PAD	-	Rig Name No: GWS 1/1
event: COMPLE	TION		Start Date	e: 1/4/201	13			End Date: 1/29/2013
	KB @5,079.00usft (ab	ove Mean S				/S/21/E/36	/0/0/26/PM/S/21	104/E/0/1770/0/0
.evel)								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	7:15 - 17:00	9.75	DRLOUT	44	С	Р		3 OF 4, FILL TBG & BREAK CIRC, P/T BOP TO 3,000 PSI TEST GOOD, SURFACE CSG VALVE OPEN & LOCKED, D/O PLUGS.
								C/O 20' SAND, TAG 1ST PLUG @ 6,272' DRL PLUG IN 11 MIN. 300 PSI INCREASE RIH, CSG PRESS 0 PSI.
								C/O 30' SAND, TAG 2ND PLUG @ 6,640' DRL PLUG IN 12 MIN. 0 PSI INCREASE RIH (NO KICK), CSG PRESS 0 PSI.
								C/O 20' SAND, TAG 3RD PLUG @ 6,938' DRL PLUG IN 10 MIN. 100 PSI INCREASE RIH, CSG PRESS 50 PSI.
								C/O 20' SAND, TAG 4TH PLUG @ 7,435' DRL PLUG IN 11 MIN. 300 PSI INCREASE RIH, CSG PRESS 50 PSI.
								C/O 30' SAND, TAG 5TH PLUG @ 7,794' DRL PLUG IN 10 MIN. 600 PSI INCREASE RIH, CSG PRESS 100 PSI.
								C/O 20' SAND, TAG 6TH PLUG @ 8,188' DRL PLUG IN 11 MIN. 500 PSI INCREASE RIH, CSG PRESS 450 PSI.
								C/O 30' SAND, TAG 7TH PLUG @ 8,635' DRL PLUG IN 10 MIN. 600 PSI INCREASE RIH, CSG PRESS 500 PSI.
								C/O 30' SAND, TAG 8TH PLUG @ 8,880' DRL PLUG IN 10 MIN. 500 PSI INCREASE RIH, CSG PRESS 600 PSI.
								C/O 30' SAND, TAG 9TH PLUG @ 9,163' DRL PLUG IN 11 MIN. 500 PSI INCREASE RIH, CSG PRESS 800 PSI.
								PBTD @ 9,565', BTM PERF @ 9,443', RIH TAGGED @ 9,540', C/O TO PBTD @ 9,565', 122' PAST BTM PERF W/ 302 JTS 2 3/8" L-80 TBG, LD 22 JTS, PU & STRIP IN TBG HANGER & LAND TBG W/ 280 JTS 2 3/8" L-80, EOT 8,870.17'.
								RD P/S, FLOOR & TBG EQUIP, ND BOPS, NU WH, DROP BALL TO SHEAR OFF BIT, P/T LINE TO HAL 9000 TO 3,000 PSI, NO VISIBLE LEAKS, LET BIT FALL FOR 20 MIN.
								TURN OVER TO FLOW BACK CREW.
								KB= 26' 4 1/16" CAMERON HANGER= .83' DELIVERED 315 JTS

2/15/2013 10:41:53AM

				Opera	tion S	umma	ry Report					
Well: MORGAN	STATE 921-36G4BS	BLUE					Spud Date: 9/5	5/2012				
Project: UTAH-	UINTAH	•	Site: MO	RGAN ST	ATE 921	-36J PAD	17. ·*	Rig Name No: GWS 1/1				
Event: COMPL	ETION		Start Date	e: 1/4/201	3			End Date: 1/29/2013				
Active Datum: I Level)	RKB @5,079.00usft (a	bove Mean Se	ea	UWI: N	N/SE/0/9	04/E/0/1770/0/0						
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation				
	17:00 - 17:00	0.00	DRLOUT	50				TBG USED 280 JTS POBS= 2.20' TBG RETURNED 35 JTS EOT @ 8,870.17' TWTR= 10,627 BBLS TWR= 3,000 BBLS TWLTR= 7,627 BBLS WELL TURNED TO SALES @ 1800 HR ON 1/29/2013. 4463 MCFD, 1920 BWPD, FCP 2809#, FTP 2431#. 20/64" CK.				
1/30/2013	7:00 -	<u>.</u>		50				WELL IP'D ON 1/30/13 - 2678 MCFD, 0 BWPD, 0 BOPD, CP 2897#, FTP 2253#, LP 122#, 24 HRS, CK 20/64				

Project: UTAH - UTM (feet), NAD27, Zone 12N Site: UINTAH, MORGAN STATE 921-36J PAD Well: MORGAN STATE 921-36G4BS Wellbore: MORGAN STATE 921-36G4BS Section: SHL: Design: MORGAN STATE 921-36G4BS (wp01)

KB: 26' RKB + 5053' GL @ 5079.00ft (H&P 298)

Latitude: 39.991195

Longitude: -109.496289 GL: 5053.00 TVDPath MDPath 1381.00 1387.16 1695.00 1704.72 2183.00 2206.93 MAH0 4637.00 4764.23 5237.00 5364.64 7316.00 7443.68 9478.00 9605.71

Formation GREEN RIVER BIRDS NEST MAHOGANY MARKER WASATCH INTERCEPT MESAVERDE SEGO

FORMATION TOP DETAILS

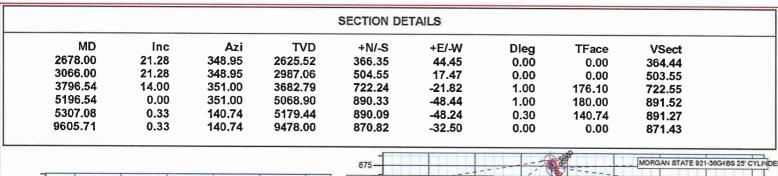
		WEL	L DETAILS: MORGA	N STATE 921-36	G4BS	
+N/-S 0.00	+E/-W 0.00	Northing 14526390.66	Ground Level: Easting 2061606.02	5053.00 Latittude 39.991195	Longitude -109.496289	Slot

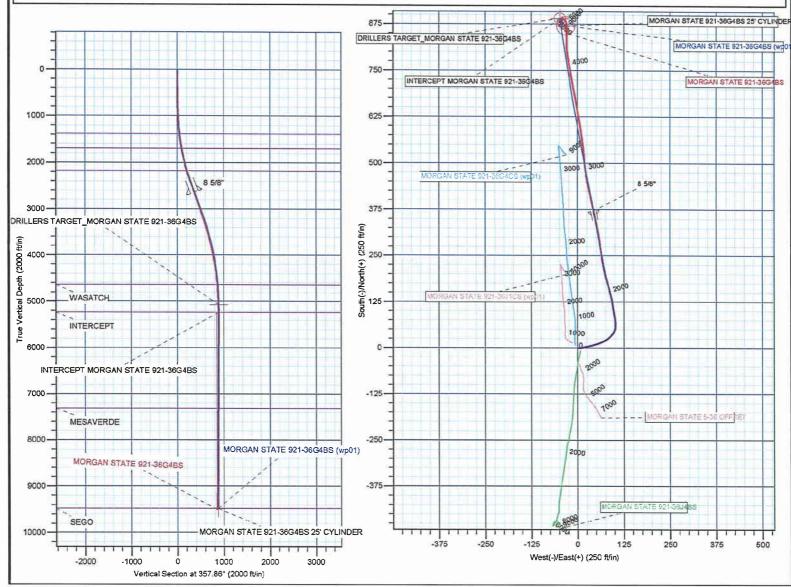
CASING DETAILS											
TVD	MD	Name	Size								
2639.51	2693.02	8 5/8"	0								

Azimuths to True North Magnetic North: 10.91*

Magnetic Fleid Strength: 52201.8snT
Dip Angle: 65.83*
Data: 9/6/2012
Model: IGRF2010

ŀ				DESIGN I	ARGET DETAILS				
	Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
	DRILLERS TARGET_MORGAN STATE 921-36G4BS	5068.90	890.33	-48.44	14527280.04	2061542.57	39.993640	-109.496462	Circle (Radius: 15.00)
	INTERCEPT MORGAN STATE 921-36G4BS	5237.00	889.83	-48.03	14527279.55	2061542.99	39.993638	-109.496460	PoInt
	MORGAN STATE 921-36G4BS 25 CYLINDER	9478.00	870.82	-32.50	14527260.81	2061558.84	39.993586	-109.496405	Circle (Radius: 25.00)





US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36J PAD MORGAN STATE 921-36G4BS

MORGAN STATE 921-36G4BS

Design: MORGAN STATE 921-36G4BS

Standard Survey Report

27 September, 2012

Survey Report

US ROCKIES REGION PLANNING Company: Project: UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36J PAD Site: MORGAN STATE 921-36G4BS Well: Wellbore: MORGAN STATE 921-36G4BS Design: MORGAN STATE 921-36G4BS

Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference: Survey Calculation Method: Database:

Well MORGAN STATE 921-36G4BS 26' RKB + 5053' GL @ 5079.00ft (H&P 298) 26' RKB + 5053' GL @ 5079.00ft (H&P 298)

Minimum Curvature

edmp

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet) Geo Datum:

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

UINTAH_MORGAN STATE 921-36J PAD Site

Site Position: From:

Map Zone:

Lat/Long

Northing: Easting:

14,526,383.50 usft 2,061,613.14 usft

Latitude: Longitude:

39.991175 -109.496264

Position Uncertainty:

0.00 ft

Slot Radius:

13-3/16 "

Grid Convergence:

0.97 °

Well MORGAN STATE 921-36G4BS Northing: **Well Position** +N/-S 0.00 ft 14,526,390.66 usft Latitude: 39.991195 +E/-W 0.00 ft Easting: 2,061,606.02 usft Longitude: -109.496289 **Position Uncertainty** 0.00 ft Wellhead Elevation: ft Ground Level: 5,053.00 ft

Wellbore MORGAN STATE 921-360	34BS		en e	
Magnetics Model Name	Sample Date E	Declination (°)	Dip Angle Fi (°)	eld Strength (nT)
IGRF2010	9/6/2012	10.91	65.83	52,202

Audit Notes: Version: 1.0 Phase: ACTUAL Tie On Depth: 22
tical Section: Depth From (TVD) +N/-S +E/-W Direction

Survey Program From (ft)	Date 9/27/2012 To (ft) Survey (Wellbore)	Tool Nan	ne Description
159.00	2,678.00 Survey #1 (MORGAN STATE 921-36G4BS	MWD	MWD - STANDARD
2,750.00	9,620.00 Survey #2 (MORGAN STATE 921-36G4BS	MWD	MWD - STANDARD

Measured			Vertical	Gallery (See 1986)		Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
22.00	0.00	0.00	22.00	0.00	0.00	0.00	0.00	0.00	0.00
159.00	0.70	76.57	159.00	0.19	0.81	0.17	0.51	0.51	0.00
189.00	0.79	89.41	188.99	0.24	1.20	0.21	0.63	0.30	42.80
272.00	1.41	86.51	271.98	0.31	2.79	0.23	0.75	0.75	-3.49
358.00	2.37	84.57	357.93	0.54	5.62	0.39	1.12	1.12	-2.26
449.00	3.70	81.34	448.80	1.16	10.39	0.88	1.47	1.46	-3.55
539.00	4.75	80.79	538.56	2.19	16.94	1.73	1.17	1.17	-0.61
629.00	5.19	79.39	628.22	3.54	24.62	2.87	0.51	0.49	-1.56
719.00	5.63	75.61	717.82	5.39	32.90	4.49	0.63	0.49	-4.20
809.00	5.98	73.67	807.35	7.80	41.67	6.67	0.45	0.39	-2.16

Survey Report

Company: Project: Site: US ROCKIES REGION PLANNING UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36J PAD MORGAN STATE 921-36G4BS

Wellbore: Design:

Well:

MORGAN STATE 921-36G4BS MORGAN STATE 921-36G4BS Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: Survey Calculation Method:

Database:

Well MORGAN STATE 921-36G4BS

26' RKB + 5053' GL @ 5079.00ft (H&P 298) 26' RKB + 5053' GL @ 5079.00ft (H&P 298)

True

Minimum Curvature

edmp

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (6)	Inclination	Azimuth	Depth (ft)	+N/-S	+E/-W	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
(ft)	(°)	(°)	64	(ft)	(ft)	LP4	() 1000311,		
899.00	6.07	71.30	896.86	10.65	50.68	9.26	0.29	0.10	-2.63
989.00	6,68	68.93	986.30	14.05	60.07	12,41	0.74	0.68	-2.63
1,079.00	7.14	64.64	1,075.65	18.33	70.01	16.42	0.77	0.51	-4.77
1,169.00	7.56	56.54	1,164.91	23.99	80.01	21.81	1.24	0.47	-9.00
1,259.00	8.00	44.14	1,254.09	31.75	89.31	29.31	1.92	0.49	-13.78
1,349.00	8.09	29.29	1,343.21	41.77	96.77	39.12	2.30	0.10	-16.50
1,439.00	7.74	10.92	1,432.37	53.24	101.01	50,48	2.83	-0.39	-20.41
1,529.00	8.09	355.86	1,521.52	65.51	101.71	62.72	2.33	0.39	-16.73
1,619.00	9.14	354.13	1,610.50	78.94	100.52	76.18	1.20	1.17	-1.92
1,709.00	10.29	351.50	1,699.21	94.00	98.60	91.29	1.37	1.28	-2.92
1,799.00	11.43	350.35	1,787.60	110.74	95.91	108.10	1.29	1.27	-1.28
1,889.00	13.19	348.95	1,875.53	129.61	92.45	127.05	1.98	1.96	-1.56
1,979.00	14.07	345.78	1,962.99	150.30	87.80	147.86	1.28	0.98	-3.52
2,069.00	14.51	343.94	2,050.21	171.74	81.99	169.44	0.70	0.49	-2.04
2,159.00	16.09	345.34	2,137.02	194.64	75.71	192.51	1.80	1.76	1.56
2,249.00	17.16	349.99	2,223.26	219.78	70.25	217.79	1.90	1.19	5.17
2,339.00	19.35	351.32	2,308.72	247.60	65.69	245.72	2.48	2.43	1.48
2,429.00	21.10	350.27	2,393.17	278.31	60.70	276.55	1.99	1.94	-1.17
2,519.00	21.02	349.83	2,477.16	310.16	55.11	308,55	0.20	-0.09	-0.49
2,609.00	21.03	349.07	2,561.17	341.90	49.20	340.44	0.30	0.01	-0.84
2,678.00	21.28	348.95	2,625.52	366.35	44.45	365.01	0.37	0.36	-0.17
TIE ON			ratika Viation				fortallage.		
2,750.00	19.99	346.38	2,692.90	391.14	39.05	389.93	2.19	-1.79	-3.57
FIRST MWD	SURVEY				erit ligi		San Bakerak		
2,844.00	19.57	348.54	2,781.35	422.18	32.14	421,15	0.90	-0.45	2.30
2,938.00	17.65	349.12	2,870.43	451.61	26.32	450.72	2.05	-2.04	0.62
3,033.00	18.06	351.19	2,960.86	480.30	21.35	479.54	0.80	0.43	2.18
3,127.00	19.75	354.44	3,049.79	510.51	17.58	509.84	2.12	1.80	3,46
3,222.00	20.00	354.44	3,139.13	542.66	14.45	542.06	0.26	0.26	0.00
3,316.00	18.69	351.82	3,227.82	573.57	10.75	573.06	1.67	-1.39	-2.79
3,411.00	17.94	350.44	3,318.01	603.06	6.15	602.67	0.91	-0.79	-1.45
3,506.00	15.06	350,07	3,409.09	629.65	1.59	629.37	3.03	-3.03	-0.39
3,601.00	14.50	350.19	3,500.94	653.53	-2.56	653.36	0.59	-0.59	0.13
3,695.00	15.69	349.44	3,591.70	677.62	-6.90	677.56	1.28	1.27	-0.80
3,790.00	14.81	347.07	3,683.35	702.08	-11.97	702.15	1.14	-0.93	-2.49
3,884.00	14.44	350.69	3,774.31	725.36	-16.55	725.54	1.05	-0.39	3.85
3,987.00	12.06	350.94	3,874.56	748.66	-20.32	748.94	2,31	-2.31	0,24
4,082.00	10.13	350.32	3,967.78	766.70	-23.29	767.05	2.04	-2.03	-0.65
4,176.00	11.38	348.82	4,060.13	783.94	-26.48	784.37	1.36	1.33	-1.60
4,270.00	9.63	353.82	4,152.55	800,86	- 29.13	801.36	2.10	-1.86	5.32
4,365.00	8.44	359.94	4,246.37	815.73	-29.99	816.25	1.61	-1.25	6.44
4,460.00	9.00	0.69	4,340.27	830.14	-29.91	830.64	0.60	0.59	0.79

Survey Report

Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: UINTAH_MORGAN STATE 921-36J PAD

Wellbore: Design: MORGAN STATE 921-36G4BS MORGAN STATE 921-36G4BS

MORGAN STATE 921-36G4BS

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference:

Survey Calculation Method:

Database:

Well MORGAN STATE 921-36G4BS

26' RKB + 5053' GL @ 5079.00ft (H&P 298) 26' RKB + 5053' GL @ 5079.00ft (H&P 298)

True

Minimum Curvature

edmp

/ey			 Hidriga das				jagjas sagayja. Pagjas sagayja	gapliyle tur	
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(9)	(ft)	(作)	(ft)	(ft)	(°/100usft)	(°/100usft)	(°/100usft)
4,648.00	5.88	0.06	4,526.17	857.92	-30.00	858.42	3.92	-3.91	0.79
4,743.00	4.38	356.94	4,620.79	866.41	-30.19	866.91	1.61	-1.58	-3.28
4,837.00	3.13	353.44	4,714.59	872.54	-30.67	873.05	1.35	-1.33	- 3.72
4,932.00	2.31	1.19	4,809.48	877.03	-30.93	877.55	0.94	-0.86	8.16
5,026.00	3.00	329.94	4,903.38	881.05	-32.12	881.60	1.68	0.73	-33.24
5,120.00	2.44	324.94	4,997.28	884.82	-34.50	885.43	0.65	-0.60	-5.32
5,215.00	1.88	323.44	5,092.21	887.73	-36.59	888.39	0.59	-0,59	-1.58
5,309.00	1.44	313.32	5,186.17	889.78	-38.37	890.49	0.56	-0.47	-10.77
5,404.00	1.19	314.07	5,281.14	891.28	-39.95	892.04	0.26	-0.26	0.79
5,498.00	0.94	310.07	5,375.13	892.46	-41.24	893.25	0.28	-0.27	-4.26
5,593.00	0.81	312.57	5,470.12	893.41	-42.33	894.23	0.14	-0.14	2.63
5,687.00	0.75	116.82	5,564,11	893.58	-42.27	894.40	1.64	-0.06	174.73
5,782.00	0.69	125.82	5,659.11	892.97	-41.25	893.76	0.13	-0.06	9.47
5,876.00	0.81	142.44	5,753.10	892.11	-40.39	892.88	0.26	0.13	17.68
5,970.00	0.94	151.82	5,847.09	890.91	-39.62	891.65	0.21	0.14	9.98
6,065.00	1.00	150,82	5,942.07	889.49	-38,85	890.22	0.07	0.06	-1.05
6,159.00	1.31	146.82	6,036.06	887.88	-37.86	888.58	0.34	0.33	-4.26
6,254.00	1.00	292.07	6,131.05	887.28	-38.03	887.99	2.32	-0.33	152.90
6,348.00	0.75	272.94	6,225.04	887.62	-39.41	888.36	0.41	-0.33	-20.35
6,442.00	0.50	245.07	6,319.03	887.48	-40.39	888.25	0.41	-0.27	-29.65
6,537.00	0.56	214.69	6,414.03	886,92	-41.03	887.71	0.30	0.06	-31.98
6,632.00	0.75	194.32	6,509.02	885.94	-41.45	886.74	0.31	0.20	-21.44
6,726.00	0.69	175.32	6,603.01	884.78	-41.56	885.58	0.26	-0.06	-20.21
6,821.00	1.06	173.94	6,698.00	883.34	-41.42	884.13	0.39	0.39	-1.45
6,915.00	0.81	231.44	6,791.99	882.06	-41.84	000 07	0.09	0.07	04.47
						882.87	0.98	-0.27	61.17
7,010.00	0.88	206.32	6,886.98	880,98	-42.69	881.82	0.39	0.07	-26.44
7,104.00	0.81	339.57	6,980.98	880.96	-43.24	881.81	1.65	-0.07	141.76
7,199.00 7,293.00	0.50 0.06	351.69 38.69	7,075.97 7,169.97	882.00 882.44	-43.54 -43.57	882.86 883.30	0.36 0.49	-0.33 -0.47	12.76 50.00
7,388.00	0.63	201.19	7,264.97	882.00	-43.73	882.86	0.72	0.60	171.05
7,482.00	1.19	194,44	7,358.96	880.57	-44.16	881.44	0.61	0.60	-7.18
7,577.00	1.38	292.82	7,453.94	880.06	-45.46	880.97	2.05	0.20	103.56
7,671.00	1.19	283.69	7,547.92	880.73	-47.45	881.69	0.30	-0.20	-9.71
7,765.00	0.81	269.44	7,641.90	880.95	-49.06	881.96	0.48	-0.40	- 15.16
7,860.00	0.75	211.19	7,736.90	880.41	-50.05	881.45	0.80	-0.06	-61.32
7,955.00	0.50	287,57	7,831.89	880.01	-50.77	881.06	0.84	-0.26	80.40
8,049.00	0.94	21.19	7,925.89	880.85	-50.88	881.91	1.16	0.47	99.60
8,143.00	0.56	48.94	8,019.88	881.87	-50.26	882.91	0.55	-0.40	29.52
8,237.00	0.31	102.44	8,113.88	882.12	-49.66	883.14	0.48	-0.27	56.92
8,332.00	1.19	142.07	8,208.87	881.28	-48.81	882.28	1.02	0.93	41.72
8,426.00	1.50	152.94	8,302.84	879.42	-47.65	880.39	0.43	0.33	11.56
8,521.00	0.63	142.07	8,397.82	877.90	-46.76	878.84	0.94	-0.92	-11.44
8,611.00	1.00	150,69	8,487.81	876.82	-46.07	877.75	0.43	0.41	9.58
8,709.00	1.63	162.69	8,585.79	874.75	-45.24	875.65	0.70	0.64	12.24

Survey Report

Company:

US ROCKIES REGION PLANNING

Project: Site: UTAH - UTM (feet), NAD27, Zone 12N UINTAH_MORGAN STATE 921-36J PAD

Well: Wellbore: Design: MORGAN STATE 921-36G4BS MORGAN STATE 921-36G4BS MORGAN STATE 921-36G4BS Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method: Database:

Well MORGAN STATE 921-36G4BS

26' RKB + 5053' GL @ 5079.00ft (H&P 298) 26' RKB + 5053' GL @ 5079.00ft (H&P 298)

True

Minimum Curvature

edmp

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W/ (ft)	Section (ft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)
8,804.00	2.00	131.94	8,680.74	872.35	-43.60	873.21	1.08	0.39	-32.37
8,899.00	1.94	124.19	8,775.69	870.34	-41.04	871.13	0.29	-0.06	-8,16
8,993.00	2.19	123.69	8,869.63	868.45	-38.23	869.16	0.27	0.27	-0.53
9,277.00	2.38	137.57	9,153.40	861.08	-29.74	861.57	0.21	0.07	4.89
9,566.00	2.38	161.57	9,442.16	850.96	-23.79	851.29	0.34	0.00	8.30
LAST MWD S	SURVEY								
9,620.00	2.38	161.57	9,496,11	848.83	-23.08	849.15	0.00	0.00	0.00

Checked	Ву:	Approved By:	Date: